|  |  |  |  |
| --- | --- | --- | --- |
| **Asset Item** | **Estimated Cost** | **Years Until Purchase** | **Annual Cost** |
| Well Pump 1 | $30,000 |  |  |
| Well Pump 2 | $30,000 |  |  |
| Water Tower Inspect & Paint | $80,000 | 10 | $8,000 |
| Sewer Manholes |  |  |  |
| Backhoe (50% cost to utility) | $45,000 | 10 | $4500 |
| **Total Expenses** |  | **---** |  |

**Instructions:** Calculate the answers to the questions below to fill in the table above.

1. Calculate the cost of sewer manhole repairs.

2. Enter the years until each project will be completed.

3. Calculate the annual costs for the well pumps

4. Calculate the annual cost for the sewer manholes

5. Calculate the estimated costs for all projects in total and on an annual basis.

6. Calculate the monthly cost to each of the utility’s 400 customers to replace the backhoe.

**Asset Information:** In this example, you are budgeting for the replacement, rehabilitation and repair of the following:

*A replacement backhoe costs $90,000. The equipment is used about 50% of the time by the utility department and 50% of the time by the public works department. It is estimated to need replacement in 10 years.*

*Two brand new well pumps with estimated lives of 15 years. Estimated cost of replacement is $30,000 each.*

*A water tower inspection and painting to be completed in 10 years. Estimated cost of this service is $80,000.*

*Sanitary sewer manhole repair and epoxy lining. In total, 120 vertical feet of manholes need rehabbed. It is estimated this will cost $300/foot in five years.*

[**Solution (ctrl + click here)**](https://www.wichita.edu/academics/fairmount_college_of_liberal_arts_and_sciences/hugowall/efc/EFCWaterTraining/SunflowerVillageRepairReplaceSolution.pdf)