| Discount rate | 8\% |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assume the project is completed in Year 0 |  |  | Year |  | Total |  |
|  | 0 | 1 | 2 | 3 |  |  |
| Costs | 100,000 | 25,000 | 25,000 | 25,000 |  |  |
| Discount factor | 1 | 0.93 | 0.86 | 0.79 |  |  |
| Discounted costs | 100,000 | 23,250 | 21,500 | 19,750 | 164,500 |  |
| Benefits | 0 | 80,000 | 80,000 | 80,000 |  |  |
| Discount factor | 1 | 0.93 | 0.86 | 0.79 |  |  |
| Discounted benefits | 0 | 74,400 | 68,800 | 63,200 | 206,400 |  |
|  |  |  |  |  |  |  |
| Discounted benefits - costs | $(100,000)$ | 51,150 | 47,300 | 43,450 | 41,900 | $\longleftarrow \mathrm{NPV}$ |
| Cumulative benefits - costs | $(100,000)$ | $(48,850)$ | $(1,550)$ | 41,900 |  |  |
|  |  |  |  |  |  |  |
| ROI | $\rightarrow 25 \%$ |  |  |  |  |  |
|  |  | ayback in | Year 3 |  |  |  |

