

PARAMETRE TABLE

Year	All	1	2	3	4	5	6	7	8	9
incremental quantity of water (m ³)		5	5	5	5	5	5	5	5	5
market price of water (\$ per m ³)	\$13									

ECONOMIC ANALYSIS

Benefits	Total
water (undiscounted)	\$585

value is quantity * price

use 'real' prices. general rule of thumb is to use todays price to work out value for all future years

note excel formula to use same price for all years - \$column\$row

PARAMETRE TABLE

Year	All	1	2	3	4	5	6	7	8	9
incremental quantity of water (m ³)		5	5	5	5	5	5	5	5	5
market price of water (\$ per m ³)	\$13									
real discount rate (%)		4%								

ECONOMIC ANALYSIS
Benefits

water (undiscounted)	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$585
water (discounted)	\$63	\$60	\$58	\$56	\$53	\$51	\$49	\$47	\$46	\$483
present value of benefits	\$483.30									

Discounted benefit values are lower than undiscounted benefit values for all positive discount rates

Idea is that society is indifferent between discounted value paid now, and undiscounted value paid at time benefit is realised

Good Idea: all data used in ECONOMIC ANALYSIS should be included in the PARAMETRE TABLE. References for data source and any key assumptions made can be included as comments in relevant cells.

PARAMETRE TABLE

Year	All	0	1	2	3	4	5	6	7	8	9
incremental quantity of water (m ³)			5	5	5	5	5	5	5	5	5
market price of water (\$ per m ³)	\$13										
Labor for construction (Days)		3	0	0	0	0	0	0	0	0	0
Materials for construction of tank (Units)		1	0	0	0	0	0	0	0	0	0
Labor for maintenance (Days)		0	10	10	10	10	10	10	10	10	10
Materials for maintenance (Units)		0	1	1	1	1	1	1	1	1	1
Wage Rate (\$/day)	\$2										
Cost of Construction Materials (\$/unit)	\$50										
Cost of Maintenance Materials (\$/unit)	\$2										
real discount rate (%)	4%										

ECONOMIC ANALYSIS
Benefits

water (undiscounted)	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65
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Costs

Construction costs

labour	\$6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
materials	\$50	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$56	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Maintenance costs

labour	\$0	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20
materials	\$0	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2
	\$0	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$22
Total costs	\$56	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$22

Net benefits (undiscounted)

(\$56) \$43 \$43 \$43 \$43 \$43 \$43 \$43 \$43 \$43

NPV of project

\$253.58