NET PRESENT VALUE: TAHIMANA

Note Contractor to fill in the Orange Cells

ITEMS	Comment	Year 0 Cost	Future Costs	Fut. Cost Frequency	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
					-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Power/Comms		**$12,649**			**$12,966**	**$13,290**	**$13,622**	**$13,963**	**$14,312**	**$14,669**	**$15,036**	**$15,412**	**$15,797**	**$16,192**	**$16,597**	**$17,012**	**$17,437**	**$17,873**	**$18,320**	**$18,778**	**$19,248**	**$19,729**	**$20,222**	**$20,728**
WWTP (Average flow = 73,300 LPD)		11,389.41			11,674	11,966	12,265	12,572	12,886	13,208	13,538	13,877	14,224	14,579	14,944	15,317	15,700	16,093	16,495	16,908	17,330	17,764	18,208	18,663
Telemetry		1,260.00			1,292	1,324	1,357	1,391	1,426	1,461	1,498	1,535	1,574	1,613	1,653	1,695	1,737	1,780	1,825	1,870	1,917	1,965	2,014	2,065
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewals		**$189,150**	**$0**	Frequency	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$93,854**	**$0**	**$0**	**$0**	**$0**
Recirculation Pumps Stage-1	(yellow denotes warranty)	$ 37,875.17		**15 years**																56,226				
Filtrate Return Pump		$ 2,404.27		**25 Years**																				
Recirculation Pumps Stage-2		$ 12,625.06		**15 years**																12,626				
Post Anoxic Mixing Pump		$ 2,404.27		**15 years**																2,405				
Fans		$ 7,925.46		**15 years**																7,926				
Alkalinity Mixing Pump		$ 2,500.91		**15 years**																2,502				
Alkalinity Dosing Pump		$ 2,500.91		**15 years**																2,502				
Carbon Dosing Pumps		$ 9,665.52		**15 years**																9,667				
Irrigation Pumps (to Irrigation)		$ 24,000.00		**25 Years**																				
Control Panel, Instrumentation and Miscellanous		$ 87,248.07		**30 years**																				
Sludge Disposal		**$2,000**			**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
WWTP		$ 2,000.00																						
Maintenance		**$28,537**			**$29,250**	**$29,981**	**$30,731**	**$31,499**	**$32,287**	**$33,094**	**$33,921**	**$34,769**	**$35,638**	**$36,529**	**$37,443**	**$38,379**	**$39,338**	**$40,322**	**$41,330**	**$42,363**	**$43,422**	**$44,507**	**$45,620**	**$46,761**
Annual Service Cost		28,536.66			29250	29981	30731	31499	32287	33094	33921	34769	35638	36529	37443	38379	39338	40322	41330	42363	43422	44507	45620	46761
Grounds Maintenance		**$1,800**			**$1,845**	**$1,891**	**$1,938**	**$1,987**	**$2,037**	**$2,087**	**$2,140**	**$2,193**	**$2,248**	**$2,304**	**$2,362**	**$2,421**	**$2,481**	**$2,543**	**$2,607**	**$2,672**	**$2,739**	**$2,807**	**$2,878**	**$2,950**
Monthly Operator (per annum)		1,800.00			1,845	1,891	1,938	1,987	2,037	2,087	2,140	2,193	2,248	2,304	2,362	2,421	2,481	2,543	2,607	2,672	2,739	2,807	2,878	2,950
Chemicals and Water		**$18,983**			**$19,457**	**$19,944**	**$20,443**	**$20,954**	**$21,477**	**$22,014**	**$22,565**	**$23,129**	**$23,707**	**$24,300**	**$24,907**	**$25,530**	**$26,168**	**$26,822**	**$27,493**	**$28,180**	**$28,885**	**$29,607**	**$30,347**	**$31,106**
Water		-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sucrose		5,619.05			5,760	5,904	6,051	6,202	6,357	6,516	6,679	6,846	7,017	7,193	7,373	7,557	7,746	7,940	8,138	8,342	8,550	8,764	8,983	9,207
Magnesium Hydroxide		13,363.85			13,698	14,040	14,391	14,751	15,120	15,498	15,885	16,283	16,690	17,107	17,535	17,973	18,422	18,883	19,355	19,839	20,335	20,843	21,364	21,898
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Compliance Monitoring		**$7,500**			**$7,688**	**$7,880**	**$8,077**	**$8,279**	**$8,486**	**$8,698**	**$8,915**	**$9,138**	**$9,366**	**$9,601**	**$9,841**	**$10,087**	**$10,339**	**$10,597**	**$10,862**	**$11,134**	**$11,412**	**$11,697**	**$11,990**	**$12,290**
Sampling and Reporting		7,500.00			7,688	7,880	8,077	8,279	8,486	8,698	8,915	9,138	9,366	9,601	9,841	10,087	10,339	10,597	10,862	11,134	11,412	11,697	11,990	12,290
TOTAL OPERATIONS & MAINTENANCE COSTS					**$71,206**	**$72,986**	**$74,810**	**$76,681**	**$78,598**	**$80,563**	**$82,577**	**$84,641**	**$86,757**	**$88,926**	**$91,149**	**$93,428**	**$95,764**	**$98,158**	**$100,612**	**$196,981**	**$105,705**	**$108,348**	**$111,057**	**$113,833**
Annualised Depreciation Cost																								
NPV Cost		[redacted]			**$71,206**	**$72,986**	**$74,810**	**$76,681**	**$78,598**	**$80,563**	**$82,577**	**$84,641**	**$86,757**	**$88,926**	**$91,149**	**$93,428**	**$95,764**	**$98,158**	**$100,612**	**$196,981**	**$105,705**	**$108,348**	**$111,057**	**$113,833**
TOTAL PLANT CAPEX																								
Inflation	**2.5%**																							

NET PRESENT VALUE ANALYSIS:

Internal Rate of Return	Lifetimes (years)
Rate	**20**
7.5%	[redacted]

Notes: Renewals only cover items valued at $500.00 or more

NET PRESENT VALUE: TAHIMANA

Note Contractor to fill in the Orange Cells

ITEMS	Comment	2046
		20
Power/Comms		**$21,246**
WWTP (Average flow = 73,300 LPD)		19,129
Telemetry		2,116
		-
Renewals		**$0**
Recirculation Pumps Stage-1	(yellow denotes warranty)	
Filtrate Return Pump		
Recirculation Pumps Stage-2		
Post Anoxic Mixing Pump		
Fans		
Alkalinity Mixing Pump		
Alkalinity Dosing Pump		
Carbon Dosing Pumps		
Irrigation Pumps (to Irrigation)		
Control Panel, Instrumentation and Miscellanous		
Sludge Disposal		**$3,359**
WWTP		3,359
Maintenance		**$47,930**
Annual Service Cost		47930
Grounds Maintenance		**$3,023**
Monthly Operator (per annum)		3,023
Chemicals and Water		**$31,883**
Water		-
Sucrose		9,438
Magnesium Hydroxide		22,446
		-
Compliance Monitoring		**$12,597**
Sampling and Reporting		12,597
TOTAL OPERATIONS & MAINTENANCE COSTS		**$120,038**
Annualised Depreciation Cost		
NPV Cost		**$120,038**
TOTAL PLANT CAPEX		
Inflation	**2.5%**	

NET PRESENT VALUE ANALYSIS:

Internal Rate of Return	Lifetimes (years)
Rate	**20**
7.5%	[redacted]

Notes: Renewals only cover items val