

**FLUJO DE FONDOS ALTERNATIVA 3**

Zona Metropolitana de Mendoza

Flujo de Fondos en dólares

Incremento en dólares del 2% anual (Tasa LIBOR)

Descripción	Año 0	Año 1	Año 2	Año 3	Año 4	Año 5	Año 6	Año 7	Año 8	Año 9	Año 10	Año 11	Año 12	Año 13	Año 14	Año 15	Año 16	Año 17	Año 18	Año 19	Año 20
<b>BENEFICIOS</b>																					
<b>TOTAL BENEFICIOS</b>		15,262,413.93	15,850,357.16	16,158,211.65	16,477,043.38	16,807,102.10	17,148,584.83	17,501,693.28	17,866,633.79	18,239,860.30	18,628,222.83	19,028,800.04	19,435,536.83	19,853,810.51	20,283,965.73	20,724,281.93	21,176,834.49	21,470,070.14	22,121,356.83	22,614,007.84	23,118,914.78
Disposición a Pagar (beneficio social)		14,628,201.38	15,069,973.07	15,220,672.80	15,372,879.52	15,526,608.32	15,681,874.40	15,838,693.15	15,997,080.08	16,157,050.88	16,318,621.39	16,481,807.60	16,646,625.68	16,813,091.93	16,981,222.85	17,151,035.08	17,322,545.43	17,322,545.43	17,670,728.60	17,847,435.88	18,025,910.24
Venta de Material recuperado (inorgánico)		634,212.55	780,384.10	937,538.85	1,104,163.86	1,280,493.78	1,466,710.43	1,663,000.13	1,869,553.71	2,082,809.42	2,309,601.44	2,546,992.44	2,788,911.15	3,040,718.58	3,302,742.87	3,573,246.85	3,854,289.05	4,147,524.71	4,450,628.24	4,766,571.96	5,093,004.54
Material inorgánico																					
<b>COSTOS</b>																					
<b>TOTAL COSTOS</b>	25,199,815.57	10,148,529.31	9,860,046.56	10,007,045.39	10,156,807.62	10,309,460.84	10,465,072.63	10,623,710.89	10,785,444.00	10,950,133.11	11,118,242.35	11,289,594.35	11,463,471.48	11,640,771.94	11,821,537.03	12,005,328.56	12,192,824.23	12,384,461.76	12,579,655.26	12,779,146.34	12,982,411.96
<b>TOTAL COSTOS INVERSIÓN</b>	24,851,263.68	0.00	0.00	0.00	0.00	0.00	6,734,564.08	0.00	0.00	0.00	0.00	8,754,933.30	0.00	0.00	0.00	0.00	10,505,919.96	0.00	0.00	0.00	0.00
<b>Total Obras de Infraestructura</b>	19,193,839.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Centro Ambiental El Borbollón</b>	17,065,162.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Obra Civil Módulo	5,612,136.73	0.00	0.00	0.00	0.00	0.00	6,734,564.08	0.00	0.00	0.00	0.00	8,754,933.30	0.00	0.00	0.00	0.00	10,505,919.96	0.00	0.00	0.00	0.00
Obra Civil Edificios Compl. y Planta	2,235,981.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Obras Complementarias	4,687,860.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Equipos móviles de uso general	1,963,673.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Equipos fijos Planta de Sep	2,190,315.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planta de Compostaje	375,194.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Planta de Maipú</b>	2,128,677.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sector de Transferencia	1,780,125.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ampliación Compostaje	348,551.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Remediación Basurales</b>	5,657,424.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Remediación Campo Papa	631,911.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Remediación Puente de Hierro	3,541,713.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Remediación Campo Cacheuta	1,483,799.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL COSTOS OPERACIÓN</b>		10,148,529.31	9,860,046.56	10,007,045.39	10,156,807.62	10,309,460.84	10,465,072.63	10,623,710.89	10,785,444.00	10,950,133.11	11,118,242.35	11,289,594.35	11,463,471.48	11,640,771.94	11,821,537.03	12,005,328.56	12,192,824.23	12,384,461.76	12,579,655.26	12,779,146.34	12,982,411.96
<b>Centro Ambiental El Borbollón</b>		4,893,131.53	4,990,994.16	5,090,814.04	5,192,630.32	5,296,482.93	5,402,412.59	5,510,460.84	5,620,670.06	5,733,083.46	5,847,745.13	5,964,700.03	6,083,994.03	6,205,673.91	6,329,787.39	6,456,383.14	6,585,510.80	6,717,221.02	6,851,565.44	6,988,596.75	7,128,368.68
Operación Módulo disposición final		1,581,396.85	1,613,024.78	1,645,285.28	1,678,190.99	1,711,754.81	1,745,989.90	1,780,909.70	1,816,527.89	1,852,858.45	1,889,915.62	1,927,713.93	1,966,268.21	2,005,593.58	2,045,705.45	2,086,619.56	2,128,351.95	2,170,918.99	2,214,337.37	2,258,624.11	2,303,796.60
Costos Anuales Generales		817,315.38	833,661.69	850,334.92	867,341.62	884,688.46	902,382.22	920,429.87	938,838.47	957,615.24	976,767.54	996,302.89	1,016,228.95	1,036,553.53	1,057,284.60	1,078,430.29	1,099,998.90	1,121,998.87	1,144,438.85	1,167,327.63	1,190,674.18
Costos Anuales de Personal		2,494,419.30	2,544,307.69	2,595,193.84	2,647,097.72	2,700,039.67	2,754,040.46	2,809,121.27	2,865,303.70	2,922,609.77	2,981,061.97	3,040,683.21	3,101,496.87	3,163,526.81	3,226,797.34	3,291,333.29	3,357,159.96	3,424,303.16	3,492,789.22	3,562,645.00	3,633,897.90
<b>Planta de Maipú</b>		2,688,863.98	2,248,965.83	2,293,945.15	2,339,824.05	2,386,620.53	2,434,352.95	2,483,040.00	2,532,700.80	2,583,354.82	2,635,021.92	2,687,722.36	2,741,476.80	2,796,306.34	2,852,232.47	2,909,277.11	2,967,462.66	3,026,811.91	3,087,348.15	3,149,095.11	3,212,077.01
Costos Generales de operación		753,058.61	768,119.78	783,482.18	799,151.82	815,134.86	831,437.55	848,066.31	865,027.63	882,328.18	899,974.75	917,974.24	936,333.73	955,060.40	974,161.61	993,644.84	1,013,517.74	1,033,788.09	1,054,463.86	1,075,553.13	1,097,064.20
Costos Personal		1,935,805.37	1,974,521.48	2,014,011.91	2,054,292.15	2,095,377.99	2,137,285.55	2,180,031.26	2,223,631.89	2,268,104.52	2,313,466.61	2,359,735.95	2,406,930.67	2,455,069.28	2,504,170.66	2,554,254.08	2,605,339.16	2,657,445.94	2,710,594.86	2,764,806.76	2,820,102.89
<b>Transporte</b>		2,566,533.80	2,620,086.57	2,622,286.20	2,624,353.24	2,626,357.38	2,628,307.09	2,630,210.05	2,632,073.13	2,633,694.83	2,635,475.30	2,637,171.97	2,638,000.65	2,638,791.69	2,639,517.17	2,639,668.30	2,639,850.77	2,640,428.83	2,640,741.68	2,641,454.48	2,641,966.27
Diferencial Servicio de Recolectión		2,558,702.54	2,612,863.96	2,615,761.59	2,618,574.99	2,621,315.81	2,623,992.42	2,626,612.31	2,629,182.27	2,631,705.96	2,634,193.69	2,636,645.58	2,639,070.88	2,641,468.79	2,643,845.31	2,646,182.05	2,648,505.98	2,650,834.14	2,653,142.46	2,655,459.52	2,657,763.18
Diferencial Servicio de Aseo Urbano		7,831.26	7,222.61	6,524.60	5,778.25	5,041.56	4,314.68	3,597.73	2,890.87	1,988.87	1,281.61	526.39	-1,070.23	-2,677.10	-4,328.14	-6,513.75	-8,655.21	-10,405.31	-12,400.78	-14,005.03	-15,796.92
<b>Cantidad de residuos a operar (tn/año)</b>		488,873.61	497,063.27	505,545.56	513,907.41	522,199.70	530,434.90	538,624.26	546,777.94	554,373.97	562,412.60	570,401.46	577,708.88	584,959.31	592,195.06	599,087.72	606,011.80	613,193.30	620,228.44	627,527.60	634,723.37
Costo Unitario por tonelada		20.76	19.84	19.79	19.76	19.74	19.73	19.72	19.73	19.75	19.77	19.79	19.84	19.90	19.96	20.04	20.12	20.20	20.28	20.36	20.45
Costo Unitario por tonelada con beneficios		19.46	18.27	17.94	17.62	17.29	16.96	16.64	16.31	16.00	15.66	15.33	15.02	14.70	14.39	14.07	13.76	13.43	13.11	12.77	12.43
<b>RESULTADOS</b>	-25,199,815.57	5,113,884.62	5,990,310.60	6,151,166.26	6,320,235.77	6,497,641.25	6,683,512.20	6,877,982.38	7,081,189.79	7,289,727.18	7,509,980.48	7,739,205.69	7,972,065.35	8,213,038.57	8,462,428.70	8,718,953.38	8,984,010.26	9,085,608.38	9,541,701.57	9,834,861.50	10,136,502.82
<b>Tiempo</b>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Tasa de descuento 12%

<b>VAN</b>	- 25,199,816	5,113,885	5,990,311	6,151,166	6,320,236	6,497,641	6,683,512	6,877,982	7,081,190	7,289,727	7,509,980	7,739,206	7,972,065	8,213,039	8,462,429	8,718,953	8,984,010	9,085,608	9,541,702	9,834,862	10,136,503
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**CONCLUSIONES ALTERNATIVA 1**  
 Esta Alternativa presenta un VAN positivo a la tasa de descuento del 12%.  
 La TIR de esta alternativa también es positiva y supera a la tasa de descuento  
 En Conclusión este Proyecto Es Viable.