Attachment E Financial Assurance Documentation

Post Closure Maintenance Cost Estimate for Cedar Hills Regional Landfill

Background

WAC 173-351 requires owners and operators of Municipal Solid Waste Landfills (MSWLF) have a detailed written estimate, in current dollars, of the cost of hiring a third party to conduct post-closure care for the MSWLF unit or all MSWLF units in compliance with the post-closure plan developed under WAC 173-351-500(2). The post closure period is defined to last thirty years or as long as necessary for the landfill to become functionally stable. For the purposes of this cost estimate, thirty years is assumed.

The Post Closure Maintenance (PCM) estimates have been prepared for Cedar Hills Regional Landfill (CHRLF) previously. These estimates are prepared based on historical levels of effort required for tasks that will continue through the post closure period and levels of effort required for similar tasks conducted at closed landfills currently maintained by the King County Solid Waste Division (SWD). The last major revision was completed in 2012; annual reviews include reviewing the proposed activities and adjusting activities that have changed based on changes to operation and maintenance practices utilized by SWD.

Purpose

The purpose of this document is to provide the basis for the PCM estimate. This includes the underlying assumptions and the documented changes from previous years. The estimate is to be reviewed annually and updated as necessary.

2014 Update

The cost items were reviewed for completeness for 2014. No additional items were identified. The cost estimates remained the same and the total annual PCM cost was inflated to 2014 dollars.

2015 Update

The cost items were reviewed for completeness for 2015 by SWD Facility Engineering and Science Unit. No additional items were identified. The line-item detail cost estimates in Table 1 remained the same and the total annual PCM cost was inflated to 2015 dollars. A math error summarizing the Table 1 details was corrected and prior year balances restated accordingly.

2016 Update

The cost items were reviewed for completeness for 2016. No additional items were identified. The cost estimates remained the same and the total annual PCM cost was inflated to 2016 dollars.

Major PCM Elements

The cost estimate includes maintenance costs for the environmental control systems at the site. The main systems are the landfill gas collection system, the leachate collection system, the North Flare Station, the leachate aeration lagoons, the cover system and the groundwater monitoring network. All tasks from previous PCM estimates were reviewed to determine that all tasks are still necessary and that all necessary tasks are included. The itemized tasks were reviewed with SWD operations leads and or supervisors.

All tasks were reviewed to determine whether current estimates of levels of effort to complete the task are still current and to determine appropriate level of effort for any new tasks.

The estimate is based on tasks being performed by SWD staff or contractors in the same manner as currently performed. To compensate for the potential that all tasks may be performed by contractors, a project management cost was added to the overall estimate. The underlying assumption is that the cost of performing the work remains constant whether performed by SWD forces or contractors, but SWD would incur increased costs for managing contracts with the contractors.

The cost items in the PCM estimate include:

- Cover Maintenance & General Site Maintenance
 - Vegetation control
 - Geomembrane repair
 - Road maintenance
 - o Fence Repair
 - Litter Control
 - Grading
 - o Well Boot repair
- Leachate System Maintenance
 - Aerator repair and maintenance
 - Pump repair and maintenance
 - Leachate extraction well replacement
 - o Periodic line cleaning
 - Air compressor repair and maintenance
- Stormwater System Maintenance
 - o Stormwater conveyance system cleaning and maintenance
 - o Catch basin cleaning and maintenance
 - o Pond cleaning and maintenance
- Landfill Gas System Maintenance
 - Blower repair and maintenance
 - o Flare repair and maintenance
 - Stack emissions testing
 - Routine testing and maintenance
- Environmental Monitoring
 - Groundwater and leachate samples
 - Laboratory analysis
 - Sample collection
 - Data analysis
 - Reporting
 - o Data Management
- Electrical Utilities
- Permits
 - Operating Permit for Closed Landfill
 - Air Operating Permit
- Wastewater Utility Fees
- Project Management and Reporting
 - Sample collection
 - o Data management
 - Reporting

- Project Management
- Investigation and Remediation
- Project management costs for third party contractor
- Contingency

Key Assumptions for Cost Estimates

Several key assumptions were made regarding the cost estimates. These assumptions are outlined below.

- ❖ The post closure period will be thirty years in length, beginning when the closure is approved by Public Health Seattle and King County (PHSKC).
- ❖ At the time of closure, BEW or equivalent facility will be operating to utilize the landfill gas generated at the site. The facility will have scheduled downtime for maintenance, requiring use of the flares. The source testing requirement for this minimized use of the flares will be to test all flares once every five years.
- ❖ The closure project at the final closure will leave all systems in full working condition, with no anticipated major repairs.
- Support facilities and equipment currently located at CHRLF will either be relocated or will be supported through another funding source.
- ❖ Leachate recirculation is not included in the estimate. It is expected that if leachate recirculation is implemented, this will represent a cost savings.
- ❖ Operating and maintenance costs are included in the hourly rates for equipment.
- Overhead costs for employees include all costs associated with providing resources for employees to perform their tasks, including supervision.
- ❖ Equipment required to perform tasks is included in task budgets, including pickups for supervisors and leads. Equipment costs are based on federal approved rates, as available and California State approved rates otherwise.
- ❖ As is true with SWD's existing closed landfills, the Industrial General Stormwater Permit (IGSWP) will no longer be in effect after closure; no stormwater sampling will be required.
- The estimate is based on tasks being performed by SWD staff or contractors in the same manner as currently performed. To compensate for the potential that all tasks may be performed by contractors, a project management cost was added to the overall estimate. The underlying assumption is that the cost of performing the work remains constant whether performed by SWD forces or contractors, but SWD would incur increased costs for managing contracts with the contractors.
- Contingency The contingency included in this estimate includes known unknowns such as responses to changes in groundwater quality or need to address landfill gas in native soil. This contingency assumes there will be one major investigation and remediation project during the thirty year closure period. This activity is projected from years 5 through 10. Additional contingency is included to address the management of the risk that the landfill gas and leachate systems may have a failure requiring extensive repair or replacement and is assumed at 25% of the maintenance cost of the leachate and landfill gas systems.
- ❖ Major cost items that have more uncertainty include a 5-10% estimating contingency. These items are maintenance activities that are currently performed and therefore have reliable cost projections to perform the work, but the frequency that will be required is less certain. Higher contingency is applied to systems that have had more variable maintenance costs.
- Unknown unknowns are not included in the contingency and are assumed to be covered by management reserves. Examples of potential unknown unknowns include remediation due to Queen City Farms, changes to regulations and natural disasters.

Assumptions specific to the tasks are included in the detail tables that provide the supporting documentation for the estimate.

Summary of Costs

The summary of costs is provided in the table below.

Table 1: Cedar Hills Regional Landfill Post Closure Maintenance Cost Estimate

	<u>Annual</u>		<u>Annual</u>	
Task Group	<u>Costs</u>	<u>Contingency</u>	<u>Amount</u>	<u>Basis</u>
Cover				Based on current estimated hours for
Maintenance	\$443,042	5%	\$461,833	PCM; updated wage and benefit rates
				Based on current estimated hours for
				PCM; updated wage and benefit
				rates; reduced aerator repair and
Leachate				replacement to reflect historical;
System				adjusted for reduced leachate
Maintenance	\$168,046	10%	\$178,844	production in PCM
Stormwater				
System				Based on current estimated hours for
Maintenance	\$356,431	5%	\$382,209	PCM; updated wage and benefit rates
				Based on current estimated hours for
				PCM; updated wage and benefit
				rates; assumes BEW or alternative
				utilizing all LFG; flares operating
Landfill Gas				intermittently requiring source testing
System				every 5 years
Maintenance	\$206,050	10%	\$226,655	
Environmental				analytical lab, weather station
Monitoring	\$143,150	10%	\$144,000	maintenance
Electrical				
Utilities	\$250,000		\$250,000	Based on current costs
Permits	\$5,000		\$5,000	Based on current permit costs
Project				Includes project management, field
Management				staff for monitoring; database mgmt
and Reporting	\$655,893		\$655,893	contract mgmt; field equipment
Project			,	Assumes contractor can complete
management				labor at same cost as KCSWD; KC
costs for third				assumes 9% cost to manage -
party contractor	\$199,135		\$206,949	contingency is inherent to labor tasks
-				
Wastewater				Assume reduced to average of 100
utility	\$250,000		\$250,000	MG per year over the 30 years
				, , , , , , , , , , , , , , , , , , , ,
Base Estimate	\$2,676,747		\$2,761,383	
, 3 .	+-,,		+-,,	Contingency based on 25% of
				leachate & LFG system maintenance
				plus one \$5M project occurring
Contingency	\$260,191		\$268,041	between years 5 and 10
	Ψ=00,101		4 _50,0.1	and the second s

TOTAL	\$2,936,938	\$3,029,424	
2013 Total	\$2,898,170	\$2,989,436	2013 Adjustment (inflation -1.32%)
2014 Total	\$2,913,240	\$3,004,981	2014 Adjustment (inflation 0.52%)
2015 Total	\$2,954,025	\$3,009,188	2015 Adjustment (inflation 1.40%)
2016 Total	\$3,030,830	\$3,087,427	2016 Adjustment (inflation 2.6%)

Exclusions

This estimate does not include costs of unknown risks. The risks addressed are identifiable and have some probability of occurring based on experiences at other closed sites. The estimate does not address the potential for the PCM period to extend beyond the minimum thirty years prescribed in the WAC 173-351.

Tons Disposed at Cedar Hills

Assuming Bellevue and Four Point Cities exit 2028 Assuming 57% Recycling rate in 2018 and stalling out after that

<u>Year</u>	Tons Disposed	Comments
2010	830,932	Actual
2011	812,784	Actual
2012	806,914	Actual
2013	809,165	Actual
2014	843,321	Actual
2015	869,802	Budget Forecast
2016	864,100	Budget Forecast
2017	837,467	Budget Forecast
2018	838,759	Budget Forecast
2019	861,700	Long Term Forecast
2020	900,440	Long Term Forecast
2021	931,737	Long Term Forecast
2022	964,275	Long Term Forecast
2023	993,079	Long Term Forecast
2024	1,021,137	Long Term Forecast
2025	1,046,527	Long Term Forecast
2026	1,067,236	Long Term Forecast
2027	1,088,391	Long Term Forecast
2028	1,104,594	Long Term Forecast
2029	1,093,134	Long Term Forecast
2030	1,062,820	Long Term Forecast
2031	1,076,669	Long Term Forecast
2032	1,098,621	Long Term Forecast
2033	1,115,291	Long Term Forecast
2034	1,132,104	Long Term Forecast
2035	1,149,103	Long Term Forecast
2036	1,166,389	Long Term Forecast
2037	1,183,962	Long Term Forecast
2038	1,201,821	Long Term Forecast
2039	1,219,924	Long Term Forecast
2040	1,238,257	Long Term Forecast

Source:	Alexander Rist, KCSWD	8/14/2015
	Revised	1/14/2016

Cedar Hills Regional Landfill - Area 8, & Toplift for Area's 5 & 6

(12/9/2015 - cost estimates from Mizanur Rahman, KCSWD)

LRF	New Area Development	Clo	sure	Faci	lity Improvements	
	Total		Total		Total	
2015	\$ 21,513,350	\$	4,302,318	\$	3,959,450	
2016	\$ 16,973,500	\$	4,459,984	\$	7,011,300	
2017	\$ 17,035,200	\$	658,227	\$	1,067,623	
2018	\$ 14,636,000	\$	6,274,302	\$	-	
2019	\$ 5,847,631	\$	3,054,605	\$	-	
2020	\$ 253,846	\$	23,887,080	\$	3,069,355	
2021	\$ -	\$	10,846,997	\$	3,438,834	
2022	\$ -	\$	430,375	\$	5,731,390	
2023	\$ -	\$	4,610,105	\$	1,146,278	
2024	\$ -	\$	413,440	\$	1,923,078	
2025	\$ 165,000	\$	4,449,283	\$	-	
2026	\$ 275,000	\$	4,587,757	\$	-	
2027	\$ -	\$	7,599,598	\$	-	~ Sept 2027, CHL @ capacity
2028	\$ -	\$	21,177,244	\$	-	
2029	\$ -	\$	309,285	\$	-	
2030	\$ -		-	\$	-	
2031		\$				
2032						

Totals	\$ 76,699,527	\$ 97,060,599	\$ 27,347,308	\$ 201,107,434
			•	\$ 88,319,070.00
				\$ 289.426.503.90

	Calculat	ion of Landfill	Reserve	Fund	2017 =	17.9984	Area 8, Toplift	5 & 6					Calculation of	f Landfill R	eserve Fund		2017 =	18.00				
	ash Flow	Dec 2015		Closure		2047		CH Post-Clos			C91004		CH New Area			C91001	CH Facility In	•		C91002	Total I DE	
Ton fo	forecast recast	Mar 2016 Feb 2016	Real		per ton	2017 =	\$6.516		per ton	2017 =	\$3.479			per ton	2017 =	\$5.924		per ton	2017 =	\$2.079	Total LRF	
Voor	Status	CH Disposal	Interest	Revenue /	Interest	Expenditures	Year-end	Revenue /	Interest	Evpondituros	Year-end Balance	Voor	Revenue /	Interest	Evpandituras	Year-end	Revenue /	Interest	Expenditures	Year-end	Year-end	Contribution Summary
Year 1994	history	Tonnage 814,384	Rate 3.0%	Transfers 4,422,550	(103,676)	513,220	Balance (2,615,707)	1,058,717	Earned 449,184	Expenditures	11,332,732	Year 1994	Transfers 2,598,299	457,169	Expenditures 283,222	Balance 11,534,186	Transfers 513,071	Earned 131,548	988,751	3,318,894	Balance 23,570,104	Summary
1995	history	822,520	3.0%	4,232,078	60,636	544,191	1,132,816	484,771	668,324		12,485,826	1995	2,390,990	740,541	830,699	13,835,018	780,564	227,132	83,237	4,243,353	31,697,013	
1996 1997	history history	809,836 864,397	3.0% 3.0%	3,341,693 3,014,712	238,061 82,895	234,264 6,163,038	4,478,306 1,412,875	727,166 738,474	741,819 915,808		13,954,811 15,609,094	1996 1997	2,091,622 11,715,021	841,907 1,615,420	933,571 1,632,096	15,834,977 27,533,323	1,070,322 208,510	296,392 358,797	34,452 27,567	5,575,616 6,115,356	39,843,710 50,670,647	
1998	history	875,496	3.0%	2,780,226	(149,601)	6,446,861	(2,403,361)	733,524	1,084,800	0	17,427,418	1998	2,838,832	1,520,115	7,496,872	24,395,398	473,833	367,074	1,059,187	5,897,075	45,316,529	
1999	history	925,357	3.0%	5,692,434	(108,825)	4,917,919	(1,737,670)	548,289	1,205,846	0	19,181,553	1999	1,133,937	926,778	11,713,734	14,742,379	325,256	226,057	2,845,891	3,602,496	35,788,758	
2000 2001	history history	947,174 936,506	3.0% 3.0%	5,696,710 5,637,760	(324,949) (91,988)	7,620,145 3,312,977	(3,986,054) (1,753,259)	719,851 739,839	1,766,389 1,245,568	0	21,667,793 23,653,200	2000 2001	1,903,818 2,041,581	1,295,365 907,435	2,051,685 1,600,992	15,889,876 17,237,900	350,454 852,220	(10,155) (17,177)	4,067,363 1,038,342	(124,568) (327,868)	33,447,047 38,809,974	
2002	history	939,488	3.0%	5,640,893	51,404	2,486,402	1,452,636	699,420	893,380	0	25,246,000	2002	832,703	447,676	5,867,404	12,650,876	2,426,479	76,085	24,613	2,150,084	41,499,597	
2003 2004	history history	978,836 1,006,163	3.0% 3.0%	3,181,167 6,130,019	138,833 107,554	2,320,514 4,199,095	2,452,121 4,490,598	636,244 523,205	676,286 664,548	0	26,558,530 27,746,284	2003 2004	6,509,525 3,999,677	269,166 111,826	3,759,093 15,113,014	15,670,474 5,878,768	630,955 0	122,498 49,159	192,901 707,299	2,710,636 2,052,497	47,391,763 40,168,146	
2004	history	988,855	3.0%	6,724,207	269,503	1,726,896	9,757,413	207,659	794,030	0	28,747,973	2004	1,077,851	118,398	2,788,412	4,286,604	0	52,606	200,482	1,904,622	44,696,611	
2006	history	998,207	3.0%	4,791,394	423,519	5,656,525	9,315,800	0	1,367,521	0	30,115,493	2006	618,888	184,967	1,019,096	4,071,363	339,390	96,390	218,133	2,122,268	45,624,925	
2007 2008	history history	1,010,429 930,617	3.0% 3.0%	4,489,147 4,234,307	549,365 291,016	3,168,565 4,913,371	11,185,747 10,797,699	0	1,554,363 856,085	762,193	31,669,856 31,763,748	2007 2008	579,848 1,061,917	112,798 (78,342)	2,468,476 6,185,877	2,295,533 (2,906,769)	317,981 241,960	53,596 11,659	1,396,695 918,189	1,097,150 432,581	46,248,287 40,087,259	
2009	history	867,481	3.0%	3,270,407	271,372	3,516,106	10,823,372	0	816,886	0	32,580,635	2009	1,397,225	(257,449)	8,501,066	(10,268,059)	216,871	(19,332)	1,401,158	(771,039)	32,364,909	
2010	history	830,932	3.0%	2,592,436	146,490	1,831,806	11,730,492	0	412,011	0	32,992,646	2010	1,213,586	(137,615)	1,827,700	(11,019,787)	224,345	(9,465)	201,785	(757,944)	32,945,406	
2011 2012	history history	812,784 806,914	-2.00% 1.93%	2,316,149 3,969,968	81,109 138,315	4,860,709 3,785,264	9,267,042 9,590,061	0	291,003 486,547	35,407 0	33,248,242 33,734,789	2011 2012	1,820,412 2,815,552	(83,237) (97,967)	227,524 0	(9,510,137) (6,792,551)	674,528 644,980	(2,050) 577	148,701 371,370	(234,166) 40,021	32,770,981 36,572,319	
2013	history	809,165	-0.70%	4,795,927	98,546	4,165,174	10,319,359	1,777,738	342,400	0	35,854,927	2013	2,631,725	(42,258)	222,039	(4,425,124)	679,699	4,302	273,484	450,539	42,199,703	
2014	history	843,321	-1.31%	5,111,363	57,249	2,593,043	12,894,929	1,867,110	168,221	0	37,890,259	2014	2,838,572	(21,270)	3,183,038	(4,790,860)	600,444	4,537	33,535	1,021,986	47,016,313	10,417,489
2015 2016	history	869,802 864,100	-0.75% -1.16%	5,821,870 8,062,831	78,551 (166,111)	6,276,818 4,459,984	12,518,531 15,955,267	3,443,063 1,998,577	260,996 (494,086)	0	43,098,809	2015	2,647,862 3,667,068	(85,384) 235,024	11,379,097 16,973,500	(13,607,479)	545,999 756,174	4,151 28,606	910,574 7,011,300	(5,564,959)	41,166,932 26,810,229	12,458,793 14,484,649
2017	forecast	837,467	-1.50%	11,023,515	(317,069)	658,227	26,003,486	4,293,573	(678,684)	0	46,713,697	2017	7,492,970	471,750	17,035,200	(35,749,367)	2,263,020	74,509	1,067,623	(4,295,053)	32,672,763	25,073,078
2018	forecast	838,759	-1.40%	5,465,470	(358,387)	6,274,302	24,836,267	2,918,280	(674,420)	0	48,957,557	2018	4,968,934	568,161	14,636,000	(44,848,273)	1,743,655	47,925	0	(2,503,473)	26,442,078	15,096,338
2019	forecast forecast	861,700 900,440	-0.96% -0.60%	5,614,956 5,867,395	(250,718) (108,816)	3,054,605 23,887,080	27,145,900 9,017,399	2,998,098 3,132,887	(484,383) (318,226)	0	51,471,272 54,285,932	2019 2020	5,104,839 5,334,344	434,109 255,700	5,847,631 253,846	(45,156,956) (39,820,758)	1,791,346 1,871,882	15,435 7,773	0 3,069,355	(696,692) (1,886,393)	32,763,524 21,596,180	15,509,239 16,206,507
2021	forecast	931,737	-0.21%	6,071,324	(13,922)	10,846,997	4,227,805	3,241,775	(117,404)	0	57,410,303	2021	5,519,746	77,828	0	(34,223,184)	1,936,942	5,538	3,438,834	(3,382,747)	24,032,177	16,769,787
2022	forecast	964,275	0.12%	6,283,349	8,585	430,375	10,089,363	3,354,985	70,905	0	60,836,193	2022	5,712,509	(37,640)	0	(28,548,315)	2,004,584	(6,295)	5,731,390	(7,115,848)	35,261,393	17,355,427
2023 2024	forecast forecast	993,079 1,021,137	0.40% 0.61%	6,471,043 6,653,869	44,079 92,199	4,610,105 413,440	11,994,381 18,327,009	3,455,204 3,552,824	250,255 404,540	0	64,541,652 68,499,016	2023 2024	5,883,151 6,049,367	(102,427) (120,432)	0	(22,767,591) (16,838,656)	2,064,464 2,122,791	(26,627) (37,359)	1,146,278 1,923,078	(6,224,289) (6,061,934)	47,544,153 63,925,435	17,873,863 18,378,851
2025	forecast	1,046,527	0.78%	6,819,315	152,194	4,449,283	20,849,235	3,641,163	548,493		72,688,672	2025	6,199,782	(107,806)	165,000	(10,911,680)	2,175,574	(38,798)	0	(3,925,159)	78,701,068	18,835,834
2026	forecast	1,067,236	0.78%	6,954,258	171,853	4,587,757	23,387,589	3,713,216	581,453		76,983,341	2026	6,322,466	(61,526)	275,000	(4,925,740)	2,218,625	(21,964)	0	(1,728,498)	93,716,693	19,208,565
2027 2028	forecast closing	834,698	0.78% 0.78%	5,439,008 0	173,997 84,337	7,599,598 21,177,244	21,400,996 308,088	2,904,150 0	611,796 616,413		80,499,288 78,171,732	2027 2028	4,944,875 0	(19,136) 0	0	0	1,735,213 0	(6,715) 0	0	0 0	101,900,283 78,479,820	15,023,246
2029	closed		0.78%	0	1,197	309,285	(0)	0	609,740		78,781,471	2029	0	0	0	0	0	0	0	0	78,781,471	222,274,176
2030 2031			0.78% 0.78%					0	603,014 584,755	2,943,969 2,943,969		2030 2031									76,440,516 74,081,302	
2032			0.78%					0	566,353	2,943,969	71,703,685	2032									71,703,685	
2033 2034			0.78% 0.78%					0	547,807 529,117	2,943,969 2,943,969		2033 2034									69,307,524 66,892,672	
2035			0.78%					0	510,281	2,943,969		2035									64,458,984	
2036			0.78%					0	491,299	2,943,969		2036									62,006,314	
2037 2038			0.78% 0.78%					0	472,168 452,888	2,943,969 2,943,969		2037 2038									59,534,513 57,043,431	
2039			0.78%					0	433,457	2,943,969	54,532,920	2039									54,532,920	
2040 2041			0.78% 0.78%					0	413,875 394,141	2,943,969 2,943,969		2040 2041									52,002,826 49,452,997	
2041			0.78%					0	374,252	2,943,969		2041									46,883,280	
2043			0.78%					0	354,208	2,943,969		2043									44,293,519	
2044 2045			0.78% 0.78%					0	334,008 313,650	2,943,969 2,943,969		2044 2045									41,683,558 39,053,240	
2046			0.78%					0	293,134	2,943,969		2046									36,402,404	
2047			0.78%					0	272,457	2,943,969		2047									33,730,893	
2048 2049			0.78% 0.78%					0	251,619 230,619	2,943,969 2,943,969		2048 2049									31,038,543 28,325,193	
2050			0.78%					0	209,455	2,943,969		2050									25,590,679	
2051			0.78%					0	188,126	2,943,969		2051									22,834,836	
2052 2053			0.78% 0.78%					0	166,630 144,967	2,943,969 2,943,969		2052 2053									20,057,497 17,258,495	
2054			0.78%					0	123,135	2,943,969	14,437,661	2054									14,437,661	
2055 2056			0.78% 0.78%					0	101,132 78,958	2,943,969 2,943,969		2055 2056									11,594,824 8,729,814	
2057			0.78%					0	56,611	2,943,969		2057									5,842,456	
2058			0.78%					0	34,090	2,943,969	2,932,576	2058									2,932,576	
2059 Assu r	nes 55%, 5	56%, 57% recyc	0.78% ling and cu	 ırrent CHRL cap	acity; compre	esses last closu	re cost estimat	0 te projection int	11,393 o operationa	2,943,969 al period shown	(0) n; uses last po	2059 st-closure	 e per year cost e	stimate.						[1	(0)	l

2059 0.78% | 0 11,393 2,943,969 (0) 2059 | Assumes 55%, 56%, 57% recycling and current CHRL capacity; compresses last closure cost estimate projection into operational period shown; uses last post-closure per year cost estimate.