

**Table 16-1
Decommissioning Cost Estimate**

Item	Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Life of Project
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Subtotal / Total
Administration & Fees															
1	Administration	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$3,575,000
2	NRC License Fees	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$3,250,000
3	ODEQ Agency Fees	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$325,000
	Administration and Fees Subtotal	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$550,000	\$7,150,000
Capital Construction Costs															
4	Capital Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a	Civil (grading, roads, foundations, etc.)	\$3,917,751	-	-	-	-	-	-	-	-	-	-	-	-	-
b	Site Remediation Piping, Pumps, Wells, Trenches, etc.	\$6,536,752	-	-	-	-	-	-	-	-	-	-	-	-	-
c	Electrical and Controls	\$2,428,955	-	-	-	-	-	-	-	-	-	-	-	-	-
d	BA1 Treatment System	\$1,419,672	-	-	-	-	-	-	-	-	-	-	-	-	-
e	WA Treatment Facility (Building, HVAC, septic, etc.)	\$453,543	-	-	-	-	-	-	-	-	-	-	-	-	-
f	WA UIX Systems (3 @ \$710,500 each)	\$2,131,500	-	-	-	-	-	-	-	-	-	-	-	-	-
g	WA UIX Resin Vessels	\$426,300	-	-	-	-	-	-	-	-	-	-	-	-	-
h	WA Resin Processing Equipment	\$440,764	-	-	-	-	-	-	-	-	-	-	-	-	-
i	WA Nitrate Treatment Train 2	\$1,065,750	-	-	-	-	-	-	-	-	-	-	-	-	-
j	WA Nitrate Treatment Train 3	\$1,370,250	-	-	-	-	-	-	-	-	-	-	-	-	-
k	WA Nitrate Treatment Train 4	\$1,928,500	-	-	-	-	-	-	-	-	-	-	-	-	-
m	WA Process Tanks, Pumps, etc.	\$320,076	-	-	-	-	-	-	-	-	-	-	-	-	-
n	Direct Costs	\$22,440,000	-	-	-	-	-	-	-	-	-	-	-	-	-
o	General Conditions / CM (25%)	\$5,610,000	-	-	-	-	-	-	-	-	-	-	-	-	-
p	Engineering During Construction (10%)	\$2,244,000	-	-	-	-	-	-	-	-	-	-	-	-	-
q	Bonds & Permits (1%)	\$224,400	-	-	-	-	-	-	-	-	-	-	-	-	-
r	Indirect	\$8,080,000	-	-	-	-	-	-	-	-	-	-	-	-	-
s	Capital Construction Subtotal	\$30,520,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,520,000
Operations & Maintenance															
5	License Compliance	\$402,950	\$402,950	\$402,950	\$402,950	\$402,950	\$402,950	\$402,950	\$402,950	\$402,950	\$402,950	\$402,950	\$201,485	\$201,475	\$4,835,410
6	Treatment Facility Operation Labor	\$422,800	\$507,360	\$507,360	\$326,592	\$326,592	\$326,592	\$326,592	\$326,592	\$326,592	\$136,192	\$136,192	\$136,192	-	\$3,805,648
7	Treatment Facility Electric	\$457,383	\$914,767	\$914,767	\$88,321	\$88,321	\$88,321	\$88,321	\$88,321	\$88,321	\$12,124	\$12,124	\$12,124	-	\$2,853,217
8	Treatment Facility Propane	\$134,500	\$269,000	\$269,000	-	-	-	-	-	-	-	-	-	-	\$672,500
9	IX Resin	\$159,712	\$108,881	\$108,881	\$25,374	\$25,374	\$25,374	-	-	\$25,374	-	-	-	-	\$478,967
10	6M HCl - Uranium System pH Adjustment	\$39,638	\$79,275	\$79,275	\$19,819	\$19,819	\$19,819	\$19,819	\$19,819	\$19,819	-	-	-	-	\$317,101
11	Barite for LLRW Disposal	\$23,552	\$46,535	\$46,535	\$6,840	\$1,710	\$1,710	\$1,710	\$1,710	\$1,710	-	-	-	-	\$132,012
12	Spent Resin Disposal	\$63,882	\$126,532	\$126,532	\$32,642	\$32,642	\$32,642	\$32,642	\$32,642	\$32,642	-	-	\$32,642	-	\$545,440
13	Bioreactor Methanol Nutrient Source	\$351,000	\$702,000	\$702,000	-	-	-	-	-	-	-	-	-	-	\$1,755,000
14	Bioreactor Waste Disposal (LLRW)	\$213,035	\$420,112	\$420,112	-	-	-	-	-	-	-	-	-	-	\$1,053,260
15	Bioreactor Waste Disposal (Solid Waste)	\$6,531	\$13,061	\$13,061	-	-	-	-	-	-	-	-	-	-	\$32,653
16	Maintenance Allowance	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$325,000
	Operation & Maintenance Subtotal	\$2,299,983	\$3,615,473	\$3,615,473	\$927,537	\$922,407	\$922,407	\$897,034	\$897,034	\$922,407	\$576,266	\$576,266	\$407,443	\$226,475	\$16,806,207
Monitoring															
17	In-Process Groundwater Monitoring	\$90,900	\$117,600	\$117,600	\$53,400	\$53,400	\$53,400	\$53,400	\$53,400	\$53,400	-	-	-	-	\$646,500
18	In-Process Treatment Monitoring	\$19,660	\$33,340	\$33,340	\$4,020	\$4,020	\$4,020	\$4,020	\$4,020	\$4,020	-	-	-	-	\$110,460
19	Post-Remediation Groundwater Monitoring	-	-	-	\$6,820	\$6,820	\$6,820	-	-	-	\$16,520	\$16,520	\$16,520	-	\$70,020
	Monitoring Subtotal	\$110,560	\$150,940	\$150,940	\$64,240	\$64,240	\$64,240	\$57,420	\$57,420	\$57,420	\$16,520	\$16,520	\$16,520	\$0	\$826,980
Demobilization and License Termination															
20	Demobilize Wells	\$84,201	-	-	-	-	-	-	-	-	-	-	-	-	\$84,201
21	Mothball Treatment Systems	-	-	-	\$200,000	-	-	-	-	-	\$150,000	-	-	-	\$350,000
22	Demobilize Uranium Treatment Components	-	-	-	-	-	\$114,166	\$461,496	-	-	-	-	\$123,211	-	\$698,873
23	Demobilize Nitrate Treatment Components	-	-	-	-	-	\$114,166	\$575,805	-	-	-	-	-	-	\$689,971
24	Final Status Survey	-	-	-	-	-	-	-	-	-	-	-	-	\$77,531	\$77,531
25	Dose Model and License Termination	-	-	-	-	-	-	-	-	-	-	-	-	\$130,961	\$130,961
	Decommissioning Subtotal	\$84,201	\$0	\$0	\$200,000	\$0	\$228,332	\$1,037,301	\$0	\$0	\$150,000	\$0	\$123,211	\$208,492	\$1,823,045
26	Total Year Cost in 2015 Dollars	\$33,564,744	\$4,316,413	\$4,316,413	\$1,741,777	\$1,536,647	\$1,764,979	\$2,541,755	\$1,504,454	\$1,529,827	\$1,292,786	\$1,142,786	\$1,097,174	\$984,967	\$57,334,723
27															Contingency (25%)
28															\$14,333,681
															Project Cost with Contingency in 2015 Dollars
															\$71,668,404