

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Maryland	Army	ABERDEEN PROVING GROUND	135,943	154,468	1,576	20,101	15%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 5) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
New York	Army	AFRC FORT WADSWORTH	150	158	18	26	17%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Alabama	Army	ANNISTON ARMY DEPOT	19,674	28,556	1,386	10,268	52%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Wisconsin	Army	BADGER ARMY AMMUNITION PLANT	20,335	25,709	2,352	7,726	38%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Virginia	Army	CAMERON STATION	1,107	1,040	258	191	17%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Missouri	Army	CAMP CROWDER	217	442	5	230	106%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
New Jersey	Army	CAMP KILMER	4,381	5,248	84	951	22%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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Arizona	Army	CAMP NAVAJO	2,990	3,324	116	450	15%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Oregon	Army	CLACKAMAS/CAMP WITHYCOMBE	1,190	5,475	15	4,300	362%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
New Hampshire	Army	COLD REGIONS RESEARCH AND ENGINEERING LABORATORY	39,973	54,776	4,807	19,610	49%	1) Technology – Change to a different or improved cleanup technology (e.g., monitored natural attenuation did not work so active remediation is needed, technology was ineffective). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Nebraska	Army	CORNHUSKER ARMY AMMUNITION PLANT	27,655	40,899	805	14,049	51%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Tennessee	Army	DEFENSE DEPOT MEMPHIS TENNESSEE	8,550	10,215	1,427	3,092	36%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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California	Army	DEFENSE DIST DEPOT SAN JOAQUIN, SHARPE FACILITY	59,017	66,672	4,725	12,380	21%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Michigan	Army	DETROIT ARSENAL	777	3,179	284	2,686	345%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Virginia	Army	FORT A P HILL	39	1,050	12	1,023	2653%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Virginia	Army	FORT BELVOIR	29,315	31,745	2,359	4,789	16%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Texas	Army	FORT BLISS	30,006	34,413	224	4,631	15%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Kentucky	Army	FORT CAMPBELL	5,084	5,645	198	759	15%	Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.

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Colorado	Army	FORT CARSON	19,493	29,237	2,160	11,904	61%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 5) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Arkansas	Army	FORT CHAFFEE	1,176	1,477	108	409	35%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Arkansas	Army	FORT CHAFFEE MANEUVER TRAINING CTR	462	695	67	300	65%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Maryland	Army	FORT DETRICK	7,456	14,527	1,359	8,430	113%	1) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
New York	Army	FORT DRUM	10,046	14,138	3,422	7,514	75%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Maryland	Army	FORT GEORGE G MEADE	28,415	34,903	1,320	7,808	27%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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Georgia	Army	FORT GORDON	5,646	17,647	514	12,515	222%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
New York	Army	FORT HAMILTON	921	3,205	81	2,365	257%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Arizona	Army	FORT HUACHUCA	2,116	2,461	8,747	9,092	430%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
California	Army	FORT HUNTER LIGGETT	1,452	1,530	1,295	1,373	94%	1) New Site. 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
South Carolina	Army	FORT JACKSON	48,204	52,723	2,617	7,136	15%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Kentucky	Army	FORT KNOX	3,686	4,127	154	595	16%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Kansas	Army	FORT LEAVENWORTH	1,872	2,364	1,301	1,793	96%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Virginia	Army	FORT LEE	1,822	2,312	284	774	42%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.

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Missouri	Army	FORT LEONARD WOOD	37,401	45,769	2,558	10,926	29%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 5) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 6) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Alabama	Army	FORT MCCLELLAN ARNG	5,738	6,326	588	1,176	20%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Wisconsin	Army	FORT MCCOY	311	3,143	12	2,844	916%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Georgia	Army	FORT MCPHERSON	5	11	20	26	511%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Virginia	Army	FORT MONROE	11,965	17,911	74	6,020	50%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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Virginia	Army	FORT PICKETT ARNG MTC	464	619	221	376	81%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Kansas	Army	FORT RILEY	33,782	39,598	630	6,446	19%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Maryland	Army	FORT RITCHIE	5,625	6,323	118	816	15%	Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Alabama	Army	FORT RUCKER	9,777	10,485	502	1,210	12%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Hawaii	Army	FORT SHAFTER	2,342	3,375	118	1,151	49%	1) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 2) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Illinois	Army	FORT SHERIDAN	8,290	8,387	1,387	1,484	18%	Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Oklahoma	Army	FORT SILL	502	1,258	68	824	164%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Georgia	Army	FORT STEWART	7,293	13,258	833	6,798	93%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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Alaska	Army	FORT WAINWRIGHT	70,503	78,394	4,089	11,980	17%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 4) New Site. 5) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 6) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 7) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
New Mexico	Army	FORT WINGATE DEPOT ACTIVITY	140,581	313,838	5,254	178,511	127%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 3) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Alaska	Army	HAINES PIPELINE	24,089	29,295	296	5,502	23%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Nevada	Army	HAWTHORNE ARMY DEPOT	68,660	87,275	3,877	22,492	33%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Tennessee	Army	HOLSTON ARMY AMMUNITION PLANT	11,103	11,832	329	1,058	10%	1) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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Iowa	Army	IOWA ARMY AMMUNITION PLANT	76,611	99,910	2,037	25,336	33%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC.
Indiana	Army	JEFFERSON PROVING GROUND	34,515	38,214	1,798	5,497	16%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Georgia	Army	JFHQ GA ARNG	3,408	11,703	445	8,740	256%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Ohio	Army	JFHQ OH ARNG	14,251	17,468	751	3,968	28%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Rhode Island	Army	JFHQ RI ARNG	8,527	9,901	7	1,381	16%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Washington	Army	JOINT BASE LEWIS-MCCHORD	30,080	37,216	5,146	12,282	41%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Virginia	Army	JOINT BASE MYER-HENDERSON HALL	223	3,674	30	3,481	1559%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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Hawaii	Army	KUNIA FIELD STATION	728	1,579	36	887	122%	Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Pennsylvania	Army	LETTERKENNY ARMY DEPOT	5,393	13,028	1,142	8,777	163%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC.
Texas	Army	LONGHORN ARMY AMMUNITION PLANT	81,522	83,843	7,339	9,660	12%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Louisiana	Army	LOUISIANA ARMY AMMUNITION PLANT	2,711	10,899	798	8,986	331%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Ohio	Army	LTA - MARION ENGR DEPOT EAST	59	59	143	143	243%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Tennessee	Army	MILAN ARMY AMMUNITION PLANT	25,167	26,674	1,408	2,915	12%	1) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Army	MILITARY OCEAN TERMINAL CONCORD	98,314	128,235	2,810	32,731	33%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC.
California	Army	MTC-H CAMP ROBERTS	4,310	4,776	125	591	14%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
California	Army	OAKLAND ARMY BASE	445	1,414	43	1,012	228%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Arizona	Army	PAPAGO MILITARY RESERVATION	2,175	1,741	1,860	1,426	66%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Arkansas	Army	PINE BLUFF ARSENAL	31,931	31,565	4,105	3,739	12%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Hawaii	Army	POHAKULOA TRAINING AREA	35,444	38,805	8,680	12,041	34%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
California	Army	PRESIDIO OF MONTEREY	1,631	1,633	264	266	16%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Colorado	Army	PUEBLO CHEMICAL DEPOT	204,550	542,390	4,666	342,506	167%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 4) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 5) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 6) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Virginia	Army	RADFORD ARMY AMMUNITION PLANT	8,270	8,809	491	1,030	12%	Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Ohio	Army	RAVENNA ARMY AMMUNITION PLANT	34,568	30,843	7,462	3,737	11%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Texas	Army	RED RIVER ARMY DEPOT	32,062	40,588	813	9,339	29%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 3) New Site.
California	Army	RIVERBANK ARMY AMMUNITION PLANT	24,200	36,216	1,725	13,741	57%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Illinois	Army	ROCK ISLAND ARSENAL	10,607	14,355	4,853	8,601	81%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Illinois	Army	SAVANNA DEPOT ACTIVITY	28,342	39,192	468	11,318	40%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 3) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Army	SIERRA ARMY DEPOT	21,361	24,210	610	3,459	16%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 5) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Kansas	Army	SUNFLOWER ARMY AMMUNITION PLANT	51,617	73,797	24,760	46,940	91%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 5) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Utah	Army	TOOELE ARMY DEPOT	56,622	78,226	831	22,435	40%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 3) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Hawaii	Army	TRIPLER ARMY MEDICAL CENTER	954	1,702	49	797	84%	Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Minnesota	Army	TWIN CITIES ARMY AMMUNITION PLANT	26,396	43,350	8,390	25,344	96%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Oregon	Army	UMATILLA CHEMICAL DEPOT	53,699	114,205	1,015	61,521	115%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
North Carolina	Army	USARC DURHAM	0	378	392	770	N/A	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Virginia	Army	VINT HILL FARMS STATION	1,266	7,399	575	6,708	530%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC.
Hawaii	Army	WAIKAKALAU AMMO STORAGE TUNNELS	785	860	11	86	11%	Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
New York	Army	WATERVLIET ARSENAL	4,226	5,775	135	1,684	40%	Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope).
Missouri	Army	WELDON SPRING TRAINING AREA	2,789	3,288	43	542	19%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Hawaii	Army	WHEELER ARMY AIRFIELD	804	880	30	106	13%	Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
New Mexico	Army	WHITE SANDS MISSILE RANGE	2,954	4,469	871	2,386	81%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 5) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Washington	Army	YAKIMA TRAINING CENTER	2,377	2,788	383	794	33%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Arizona	Army	YUMA PROVING GROUND	15,955	16,795	5,328	6,168	39%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Georgia	Navy	ALBANY MCLB	12,315	13,000	902	1,587	13%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Maryland	Navy	ANNAPOLIS NSWC DET BAY HEAD ANNEX	416	418	89	91	22%	Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval).
California	Navy	AZUSA NCCOSC MORRIS DAM FACILITY	2,447	2,479	463	495	20%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Hawaii	Navy	BARBERS POINT NAS	7,326	9,657	817	3,148	43%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Massachusetts	Navy	BEDFORD NWIRP	22,251	38,522	1,459	17,730	80%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Maine	Navy	BRUNSWICK NAS	34,056	46,056	2,641	14,641	43%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
New York	Navy	CALVERTON NWIRP	16,642	16,377	4,577	4,312	26%	1) New Site. 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
North Carolina	Navy	CAMP LEJEUNE MCB	136,013	138,629	13,773	16,389	12%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Texas	Navy	CHASE FIELD NAS	4,559	5,066	10	517	11%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.

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Maryland	Navy	CHESAPEAKE BAY DET NRL	2,776	2,495	897	616	22%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Virginia	Navy	CHESAPEAKE NSGA NWEST	750	731	672	653	87%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	Navy	CHINA LAKE NAWS	128,621	140,874	5,883	18,136	14%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 5) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Navy	CONCORD NWS	65,515	68,278	8,295	11,058	17%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Navy	CORONA NOC NWAD	276	101	406	231	84%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
California	Navy	CORONADO NAB	3,130	4,081	154	1,105	35%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Virginia	Navy	DAM NECK FCTC	9,119	9,918	1,015	1,814	20%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	Navy	FALLBROOK NOC PAC DIV DET	24,094	24,019	2,583	2,508	10%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Nevada	Navy	FALLON NAS	26,581	24,379	6,471	4,269	16%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Technology – Change to a different or improved cleanup technology (e.g., monitored natural attenuation did not work so active remediation is needed, technology was ineffective). 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Texas	Navy	FT WORTH TX NAS JRB	8,913	9,014	1,427	1,528	17%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Guam	Navy	GUAMI COMNAV/MARIANAS	1,940	2,191	2,039	2,290	118%	Technology – Change to a different or improved cleanup technology (e.g., monitored natural attenuation did not work so active remediation is needed, technology was ineffective).
Mississippi	Navy	GULFPORT NCBC	14,683	11,686	5,460	2,463	17%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Washington	Navy	KEYPORT NUWC	24,455	26,824	3,059	5,428	22%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Georgia	Navy	KINGS BAY NSB	3,877	4,314	57	494	13%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Navy	LONG BEACH NS	980	1,001	592	613	62%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Navy	LONG BEACH NS SAN PEDRO	10,495	10,439	1,085	1,029	10%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
California	Navy	MARE ISLAND NSY	64,942	68,722	4,679	8,459	13%	1) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Pennsylvania	Navy	MECHANICSBURG SPCC	4,279	8,597	246	4,564	107%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Tennessee	Navy	MEMPHIS NAS	8,490	8,626	2,828	2,964	35%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC.
Mississippi	Navy	MERIDIAN NAS	12,015	17,770	4,534	10,289	86%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Navy	MIRAMAR MCAS	31,789	26,327	18,680	13,218	42%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Puerto Rico	Navy	NAVACT PUERTO RICO	31,279	46,065	4,204	18,990	61%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Rhode Island	Navy	NEWPORT NETC	72,165	84,399	9,691	21,925	30%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Virginia	Navy	NORFOLK COMNAVBASE	41,895	44,467	3,200	5,772	14%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Technology – Change to a different or improved cleanup technology (e.g., monitored natural attenuation did not work so active remediation is needed, technology was ineffective).
Virginia	Navy	NORFOLK NSY	16,011	20,641	812	5,442	34%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	Navy	NORTH ISLAND NAS	87,599	90,662	8,767	11,830	14%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 3) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Navy	NOVATO DOD HOUSING FACILITY	371	261	453	343	92%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Florida	Navy	ORLANDO NTC	12,111	13,358	786	2,033	17%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Hawaii	Navy	PEARL HARBOR FISC	17,056	19,355	337	2,636	15%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Hawaii	Navy	PEARL HARBOR NSY	6,550	6,824	655	929	14%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Alaska	Navy	POINT BARROW NARL	32,660	34,648	1,286	3,274	10%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Navy	PORT HUENEME NCBC	8,434	7,521	2,702	1,789	21%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
California	Navy	SALTON SEA TEST RANGE	2,924	3,106	111	293	10%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
California	Navy	SAN DIEGO NCCOSC	21,227	21,471	5,466	5,710	27%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	Navy	SAN DIEGO NISE WEST	3,997	7,461	860	4,324	108%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Florida	Navy	SAUFLEY FIELD NAS	7,694	8,040	1,587	1,933	25%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – Regulation Change – A broad-scale or national change in regulation that impacts multiple sites (e.g., newly promulgated or modified Applicable or Relevant and Appropriate Requirement). 3) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval).
Maryland	Navy	ST INIGOES NISE EAST COAST DET	399	1,444	169	1,214	304%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Virginia	Navy	ST JULIEN'S CREEK ANNEX	15,636	21,343	1,018	6,725	43%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
California	Navy	TREASURE ISLAND NS	35,117	47,780	7,761	20,424	58%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Standards or Regulations – Regulation Change – A broad-scale or national change in regulation that impacts multiple sites (e.g., newly promulgated or modified Applicable or Relevant and Appropriate Requirement). 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 5) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
New Jersey	Navy	TRENTON NAWC	24,751	30,785	932	6,966	28%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
California	Navy	TUSTIN MCAS	14,841	15,656	1,194	2,009	14%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – Regulation Change – A broad-scale or national change in regulation that impacts multiple sites (e.g., newly promulgated or modified Applicable or Relevant and Appropriate Requirement). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Puerto Rico	Navy	VIEQUES EAST	265,072	263,131	29,805	27,864	11%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval).

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Washington	Navy	WHIDBEY ISLAND NAS	96,116	98,255	11,158	13,297	14%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Florida	Navy	WHITING FIELD NAS	25,986	25,023	4,945	3,982	15%	1) Standards or Regulations – DoD Policy or Directive – A change in DoD policy or directive that redefines the costs included in the CTC. 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Arizona	Navy	YUMA MCAS	18,207	19,932	1,759	3,484	19%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Air Force	AF PLANT NO 42 - B	42,482	81,030	740	39,288	92%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Oklahoma	Air Force	AIR FORCE PLANT 3	3,153	8,328	180	5,355	170%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Ohio	Air Force	AIR FORCE PLANT 85	11,734	13,082	344	1,692	14%	1) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Florida	Air Force	AVON PARK AIR FORCE RANGE	5,108	9,704	180	4,776	93%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	Air Force	BEALE	205,474	227,198	17,961	39,685	19%	1) New Site. 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Hawaii	Air Force	BELLOWS AIR FORCE STATION	5,004	5,181	2,967	3,144	63%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
New Mexico	Air Force	CANNON	76,200	81,241	13,631	18,672	25%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
North Dakota	Air Force	CAVALIER AIR FORCE STATION	0	2,744	2,648	5,392	N/A	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Mississippi	Air Force	COLUMBUS AIR FORCE BASE	11,274	13,999	1,593	4,318	38%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Nevada	Air Force	CREECH AIR FORCE BASE	2,945	7,345	54	4,454	151%	1) New Site. 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Arizona	Air Force	DAVIS-MONTHAN AIR FORCE BASE	11,139	14,186	6,912	9,959	89%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Georgia	Air Force	DOBBINS AIR FORCE BASE	10,415	26,913	1,939	18,437	177%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Delaware	Air Force	DOVER AIR FORCE BASE	125,160	148,838	7,799	31,477	25%	1) New Site. 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Texas	Air Force	DYESS	15,672	17,898	926	3,152	20%	1) New Site. 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Florida	Air Force	EGLIN	63,888	64,216	8,009	8,337	13%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 5) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Massachusetts	Air Force	HANSCOM	41,645	46,922	1,138	6,415	15%	1) Standards or Regulations – Regulation Change – A broad-scale or national change in regulation that impacts multiple sites (e.g., newly promulgated or modified Applicable or Relevant and Appropriate Requirement). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Florida	Air Force	HURLBURT FIELD	12,479	17,964	1,735	7,220	58%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Maryland	Air Force	JB-ANDREWS	141,983	158,291	3,221	19,529	14%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Virginia	Air Force	JBLE-EUSTIS	21,804	25,037	1,744	4,977	23%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Texas	Air Force	JBSA-FORT SAM HOUSTON	5,423	10,058	108	4,743	87%	1) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 2) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Mississippi	Air Force	KEESLER	8,648	8,876	696	924	11%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Michigan	Air Force	KI SAWYER	68,516	74,234	1,379	7,097	10%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Maine	Air Force	LORING	37,108	90,693	899	54,484	147%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Colorado	Air Force	LOWRY	6,418	21,696	120	15,398	240%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Arizona	Air Force	LUKE	13,372	15,940	9,671	12,239	92%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Florida	Air Force	MACDILL	45,232	63,663	1,258	19,689	44%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	Air Force	MATHER	137,338	155,135	3,139	20,936	15%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	Air Force	NAKNEK RECREATIONAL CAMP II	7,859	10,554	1,386	4,081	52%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Nevada	Air Force	NELLIS AIR FORCE BASE	31,282	28,255	7,897	4,870	16%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
New Hampshire	Air Force	NEW BOSTON	4,800	5,861	936	1,997	42%	1) Standards or Regulations – Regulation Change – A broad-scale or national change in regulation that impacts multiple sites (e.g., newly promulgated or modified Applicable or Relevant and Appropriate Requirement). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
New York	Air Force	NIAGARA FALLS	10,767	12,212	556	2,001	19%	1) Standards or Regulations – Regulation Change – A broad-scale or national change in regulation that impacts multiple sites (e.g., newly promulgated or modified Applicable or Relevant and Appropriate Requirement). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
South Carolina	Air Force	NORTH AUXILIARY AIRFIELD	0	1,965	934	2,899	N/A	New Site.
California	Air Force	NORTON	12,449	31,508	578	19,637	158%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Florida	Air Force	PATRICK AIR FORCE BASE	43,318	47,427	812	4,921	11%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) New Site. 4) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Colorado	Air Force	PETERSON AIR FORCE BASE	110,274	125,203	14,538	29,467	27%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Alaska	Air Force	POINT LAY	27,349	61,411	109	34,171	125%	Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope).

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Ohio	Air Force	RICKENBACKER	10,629	45,094	323	34,788	327%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
New York	Air Force	ROME RESEARCH SITE	49,767	52,406	2,373	5,012	10%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Standards or Regulations – Regulation Change – A broad-scale or national change in regulation that impacts multiple sites (e.g., newly promulgated or modified Applicable or Relevant and Appropriate Requirement). 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	Air Force	SAN DIEGO SPACE SURVEILLANCE FIELD STATN	763	944	190	371	49%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Colorado	Air Force	SCHRIEVER AIR FORCE BASE	0	1,728	3,056	4,784	N/A	New Site.
South Carolina	Air Force	SHAW AIR FORCE BASE	76,905	81,711	9,486	14,292	19%	1) New Site. 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
Texas	Air Force	SHEPPARD	9,093	9,967	427	1,301	14%	1) New Site. 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Change in contract or contract method.
California	Air Force	TRAVIS AIR FORCE BASE	134,310	238,000	6,428	110,118	82%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Colorado	Air Force	USAF ACADEMY	19,862	21,833	180	2,151	11%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Massachusetts	Air Force	WESTOVER	2,769	4,665	71	1,967	71%	1) Standards or Regulations – Regulation Change – A broad-scale or national change in regulation that impacts multiple sites (e.g., newly promulgated or modified Applicable or Relevant and Appropriate Requirement). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Missouri	Air Force	WHITEMAN AIR FORCE BASE	12,025	17,278	872	6,125	51%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site. 3) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 4) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Arizona	Air Force	WILLIAMS	59,286	65,708	3,511	9,933	17%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Maryland	DLA	CURTIS BAY	3,973	5,492	264	1,783	45%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Pennsylvania	DLA	DD SUSQUEHANNA, NEW CUMBERLAND FAC.	1,219	5,710	152	4,643	381%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
New York	DLA	DLA ENERGY	0	28	560	588	N/A	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Alaska	DLA	DLA PACIFIC, ARCTIC SURPLUS	1,937	2,368	8	439	23%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Ohio	DLA	DSC COLUMBUS	873	945	595	667	76%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Maine	FUDS	AF GAT	10,340	11,737	355	1,752	17%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Maine	FUDS	AF RADAR TRACKING STATION	6,950	7,978	348	1,376	20%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Florida	FUDS	AIR-TO-GROUND GUN RANGE PINELLAS	97	737	46	686	704%	Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope).
Alaska	FUDS	AKUTAN	202	996	96	890	441%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	ANIAC ARPT	227	380	2	155	68%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Wisconsin	FUDS	ANTIGO AIR FORCE STATION	4,836	12,326	1,525	9,015	186%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Oklahoma	FUDS	ARDMORE AIR FORCE BASE	219	732	88	601	274%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
American Samoa	FUDS	AUA FUEL FARM	13,345	21,927	7,611	16,193	121%	Technology – Change to a different or improved cleanup technology (e.g., monitored natural attenuation did not work so active remediation is needed, technology was ineffective).
California	FUDS	BENICIA ARSENAL	4,348	22,249	258	18,159	418%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
South Dakota	FUDS	BLACK HILLS ORD DPT	10,926	28,405	2,085	19,564	179%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Rhode Island	FUDS	BLUE BEACH	3,614	5,958	86	2,430	67%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Idaho	FUDS	BOISE ARMY BARRACKS	17,753	16,521	4,213	2,981	17%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alabama	FUDS	BROOKLEY AFB U SO ALA	6,110	5,748	1,694	1,332	22%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
New Jersey	FUDS	BURLINGTON AAP	890	1,423	67	600	67%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Florida	FUDS	BUSHNELL ARMY AIRFIELD	1,586	4,187	730	3,331	210%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Oregon	FUDS	CAMP ADAIR/ADAIR AFS	56,193	63,748	130	7,685	14%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Arkansas	FUDS	CAMP CHAFFEE	81	594	25	538	662%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Illinois	FUDS	CAMP ELLIS MILITARY RESERVATION	9,334	12,505	312	3,483	37%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Colorado	FUDS	CAMP HALE	142,284	186,218	396	44,330	31%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Louisiana	FUDS	CAMP LIVINGSTON	25,192	29,898	66	4,772	19%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	FUDS	CAMP SAN LUIS OBISPO	44,042	64,755	173	20,886	47%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Alaska	FUDS	CANOL PIPELINE	14,805	15,658	2,034	2,887	20%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Massachusetts	FUDS	CAPE POGE LITTLE NECK BOMB TARGET SITE	2,373	1,964	681	272	11%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	CAPE PROMINENCE AWS	70	69	1,273	1,272	1816%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	CAPE YAKAK RADIO STA	7,281	5,636	2,748	1,103	15%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval).
Utah	FUDS	CARRINGTON ISLAND PRECISION BOMBING RANGE	5,666	10,573	122	5,029	89%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Texas	FUDS	CASTNER RANGE	499	593	26	120	24%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Maine	FUDS	CASWELL AFS Z-80	621	1,002	239	620	100%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
California	FUDS	CHICO ARMY AIRFIELD	264	31	383	150	57%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Utah	FUDS	CLEARFIELD NAVAL SUPPLY DEPOT	37	82	259	304	833%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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Oklahoma	FUDS	CLINTON SHERMAN AFB	4,504	4,518	514	528	12%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Florida	FUDS	CORRY ST USN TECH TRAINING	5,402	6,228	775	1,601	30%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
North Carolina	FUDS	CP BUTNER TRNG CMP	211,530	290,666	196	79,332	38%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
South Carolina	FUDS	CP CROFT	183,312	196,536	16,560	29,784	16%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
New York	FUDS	CP HERO	23,197	24,160	1,277	2,240	10%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Alabama	FUDS	CRAIG AFB	565	1,857	65	1,357	240%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Puerto Rico	FUDS	CULEBRA PUERTO RICO	105,079	112,891	3,343	11,155	11%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Florida	FUDS	DELAND NAVAL TRAINING CENTER	132	155	57	80	61%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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Maine	FUDS	DOW MIL AF	6,095	6,813	536	1,254	21%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	FUDS	D-Q UNIVERSITY	2,903	1,894	1,656	647	22%	Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope).
North Carolina	FUDS	DUCK TARGET FACILITY	460	663	76	279	61%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	EKLUTNA ARMY SITES	5,021	12,494	284	7,757	154%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Wyoming	FUDS	FE WAR AFB AF FAC S-6	2,644	7,351	1,643	6,350	240%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Colorado	FUDS	FE WARREN AFB FAC SITE 11	2,099	5,210	760	3,871	184%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Colorado	FUDS	FE WARREN AFB FAC SITE 12	3,170	4,938	101	1,869	59%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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Wyoming	FUDS	FE WARREN AFB FAC SITE 2	37,904	74,838	1,029	37,963	100%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Wyoming	FUDS	FE WARREN AFB FAC SITE 3	106,514	206,043	161	99,690	94%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Wyoming	FUDS	FE WARREN AFB FAC SITE 4	39,527	99,473	526	60,472	153%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Wyoming	FUDS	FE WARREN AFB FAC SITE 7	86	152	7	73	84%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Minnesota	FUDS	FINLAND AFS Z-69	2,474	9,388	37	6,951	281%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Kansas	FUDS	FORBES AFB ATLAS S-05	1,526	13,183	77	11,734	769%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Kansas	FUDS	FORBES AFB ATLAS S-07	1,390	1,648	218	476	34%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Texas	FUDS	FORMER CAMP FANNIN	4,268	4,328	634	694	16%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Michigan	FUDS	FORT CUSTER REC/INDUSTRIAL AREAS	18,218	26,203	451	8,436	46%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Michigan	FUDS	FORT CUSTER VA AREA	5,567	8,322	89	2,844	51%	Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope).
Wyoming	FUDS	FORT FRANCIS E. WARREN TAR & MANEUVER RGE	5,079	7,918	45	2,884	57%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	FORT TIDBALL/LONG ISLAND	426	346	2,731	2,651	622%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Pennsylvania	FUDS	FRANKFORD ARSENAL	1,244	1,475	140	371	30%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Florida	FUDS	FT MYERS BOMB & GUN RANGE	2,570	2,767	95	292	11%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	FUDS	GOLDEN GATE NATIONAL RECREATION AREA	323	27	518	222	69%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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Minnesota	FUDS	GOPHER ORD PLT ROSEMOUNT	43	136	112	205	482%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Rhode Island	FUDS	GOULD ISLAND NUSC	1,826	3,758	502	2,434	133%	New Site.
Alaska	FUDS	GREAT SITKIN ISL	93,145	115,490	3,686	26,031	28%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Michigan	FUDS	GROSSE ILE NAS - NIKE D-51	6,096	7,207	523	1,634	27%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	HAINES FAIRBANKS PIPELINE	15,537	18,469	1,728	4,660	30%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Louisiana	FUDS	HAMMOND BOMBING RANGE	11,134	12,803	29	1,698	15%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Northern Mariana	FUDS	HOSPITAL DUMP SITE	2,205	2,629	168	592	27%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Utah	FUDS	HURRICANE MESA TEST SITE	9,804	9,630	1,793	1,619	17%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Kansas	FUDS	HUTCHINSON NAS	3,589	9,606	75	6,092	170%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Technology – Change to a different or improved cleanup technology (e.g., monitored natural attenuation did not work so active remediation is needed, technology was ineffective).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
New York	FUDS	IONA ISLAND NAVAL AMMUNITION DEPOT	4,794	6,694	173	2,073	43%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Missouri	FUDS	JEFFERSON BARRACKS	664	831	17	184	28%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Missouri	FUDS	KCDA NIKE BATTERY 10	126	23	146	43	34%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Arizona	FUDS	KINGMAN G TO G GUNNERY RANGE	8,249	8,959	127	837	10%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
New Mexico	FUDS	KIRTLAND AFB DEM BOMB RGE	1,473	1,480	335	342	23%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
New York	FUDS	LAKE ONTARIO ORDNANCE WORKS	323	408	547	632	196%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Nebraska	FUDS	LINCOLN AFB AF FAC S-1	2,181	3,072	66	957	44%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Nebraska	FUDS	LINCOLN AFB AF FAC S-10	8,360	9,147	547	1,334	16%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Nebraska	FUDS	LINCOLN AFB AF FAC S-4	33,752	35,304	1,694	3,246	10%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Nebraska	FUDS	LINCOLN AFB AF FAC S-7	8,155	12,843	335	5,023	62%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Nebraska	FUDS	LINCOLN AFB AF FAC S-8	384	1,734	80	1,430	373%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Nebraska	FUDS	LINCOLN AFB AF FAC S-9	4,036	6,466	29	2,459	61%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
New York	FUDS	LOCKPORT AFS	4,000	4,838	1,660	2,498	62%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Colorado	FUDS	LOWRY AFB S-1 (COMPLEX 1B)	478	3,187	64	2,773	580%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Colorado	FUDS	LOWRY AFB S-1 (COMPLEX 1C)	1,523	2,208	52	738	48%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Colorado	FUDS	LOWRY AFB S-2 (COMPLEX 2C)	4,281	12,499	58	8,276	193%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Maine	FUDS	MACH GATR	2,518	3,068	3	553	22%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
California	FUDS	MOJAVE GUNNERY RANGE	59,362	88,130	4,597	33,365	56%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model. 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Tennessee	FUDS	MOTLOW RANGE	1,568	1,590	692	714	46%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	FUDS	MOUNT OWEN RIFLE RANGE	2,032	2,393	101	462	23%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
North Carolina	FUDS	NAAS EDENTON	1,024	1,523	46	545	53%	Technology – Change to a different or improved cleanup technology (e.g., monitored natural attenuation did not work so active remediation is needed, technology was ineffective).

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Virginia	FUDS	NANSEMOND ORDNANCE DEPOT	17,333	19,092	1,887	3,646	21%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Massachusetts	FUDS	NANTUCKET BCH	892	1,153	33	294	33%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
New Jersey	FUDS	NAS CAPE MAY	480	532	123	175	36%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Oregon	FUDS	NAV AIR STA, TONGUE POINT	8,676	9,522	499	1,345	15%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Rhode Island	FUDS	NAVAL AUX LANDING FIELD	8,839	11,075	191	2,427	27%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
California	FUDS	NAVAL AUXILIARY AIR STATION ARCATA	1,465	2,441	342	1,318	90%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
California	FUDS	NAVAL AUXILIARY AIR STATION SANTA ROSA	787	7,630	414	7,257	923%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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Alaska	FUDS	NE CAPE (ST LAWRENCE ISLAND)	7,621	10,215	180	2,774	36%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Rhode Island	FUDS	NETC(MELVILLE IND FAC)	3,572	4,357	61	846	24%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
New York	FUDS	NEW YORK ORDNANCE WORKS	5,475	7,689	407	2,621	48%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Maine	FUDS	NIKE 58	473	6,010	302	5,839	1234%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Maryland	FUDS	NIKE BA-30/31 (TOLCHESTER)	194	246	145	197	102%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Indiana	FUDS	NIKE C-47 - HOBART	274	325	265	316	115%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Ohio	FUDS	NIKE CD-78 - OXFORD	1,881	3,300	639	2,058	109%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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Maine	FUDS	NIKE LO-13	41	891	39	889	2191%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Pennsylvania	FUDS	NIKE PH-75/78 (MEDIA)	150	149	73	72	48%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Rhode Island	FUDS	NIKE PR-79	4,625	5,082	594	1,051	23%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	NIKE SITE BAY	6,100	7,542	1,500	2,942	48%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Illinois	FUDS	NIKE SL-10 - MARINE	2,409	5,030	134	2,755	114%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	NOME AREA DEF REGION	1,090	1,070	159	139	13%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Hawaii	FUDS	OAHU ISLAND TARGET	1,771	2,716	108	1,053	59%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	OCEAN CAPE RR SITE	53	406	26	379	718%	New Site.
Nebraska	FUDS	OFFUTT AFB AF FAC S-2	3,867	6,200	62	2,395	62%	Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval).
Alaska	FUDS	OGLIUGA ISL	2,422	3,080	442	1,100	45%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Northern Mariana	FUDS	ORDNANCE PLAN	12,529	62,119	227	49,817	398%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.

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Virginia	FUDS	OYSTER POINT STORAGE AREA	4,081	4,430	50	399	10%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
California	FUDS	PARKS AFB	11,292	17,075	191	5,974	53%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
South Dakota	FUDS	PINE RIDGE GUNNERY RANGE	21,315	22,278	3,919	4,882	23%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Idaho	FUDS	POCATELLO BOMBING RANGE #3	3,041	21,461	1,118	19,538	643%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Wyoming	FUDS	POLE MOUNTAIN	116,881	130,726	55	13,900	12%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Puerto Rico	FUDS	PUERTO RICO BOMB RANGE	3,898	3,925	354	381	10%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Rhode Island	FUDS	QUARRY DISPOSAL SITE	1,124	1,331	202	409	36%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Michigan	FUDS	RACO AAF-HIAWATHA NF	4,880	5,928	148	1,196	25%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

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New Jersey	FUDS	RARITAN ARSN-TA ED PK	11,148	15,988	864	5,704	51%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Florida	FUDS	RICHMOND NAS	251	446	29	224	89%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
Washington	FUDS	SAND PT NAS-MAGNUSON PK	0	715	71	786	N/A	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Michigan	FUDS	SAULT STE MARIE AFS	2,421	2,643	612	834	34%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Kansas	FUDS	SCHILLING AFB	7	31	11	35	491%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Kansas	FUDS	SCHILLING AFB ATLAS S-05	3,067	7,665	149	4,747	155%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Kansas	FUDS	SCHILLING AFB ATLAS S-06	5,813	6,841	108	1,136	20%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Washington	FUDS	SEATTLE NAVAL SUPPLY DEPOT	0	41	3	44	N/A	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Missouri	FUDS	SEDALIA AAF RIFLE RANGE	3,897	4,302	32	437	11%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Nebraska	FUDS	SIOUX ARMY DEPOT	19,945	21,347	2,759	4,161	21%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Arkansas	FUDS	SOUTHWESTERN PROV GROUND	688	745	25	82	12%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
District of Columbia	FUDS	SPRING VALLEY	17,115	12,485	10,136	5,506	32%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
New York	FUDS	STEWART AFB	5,969	7,160	265	1,456	24%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Alaska	FUDS	SUSITNA GUNNERY RNG	8,371	9,151	280	1,060	13%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Northern Mariana	FUDS	TANAPAG FUEL FARM	580	766	159	345	60%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
California	FUDS	TEMECULA BOMB TARGET #107	4,587	5,041	96	550	12%	Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.

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State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Alaska	FUDS	TIGALDA ISLAND	97	1,796	127	1,826	1874%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Pennsylvania	FUDS	TOBYHANNA ARTILLERY RANGE	2,219	5,851	448	4,080	184%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Cost Estimate Change Unrelated to Change in Scope – Actual contract cost for prior or ongoing work is greater than the prior estimate. This additional cost may also be caused by changes in schedule.
California	FUDS	TRAVIS AFB NIKE BATTERY 10	110	511	206	607	554%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Georgia	FUDS	TURNER AIR FORCE BASE	2,189	5,387	79	3,277	150%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
California	FUDS	UCSD (CAMP MATTHEWS)	36	843	114	921	2594%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Alaska	FUDS	UNALAKLEET AFSTA	4,366	5,495	106	1,235	28%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Alaska	FUDS	UNALGA ISL NAV RADIO	8,725	11,256	34	2,565	29%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
American Samoa	FUDS	VAIPITO VILLAGE	113	414	32	333	296%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Hawaii	FUDS	WAIKANE TRAINING AREA	4,767	7,786	63	3,082	65%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Hawaii	FUDS	WAIKOLOA MANEUVER AREA	332,505	354,591	14,242	36,328	11%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Virginia	FUDS	WALLOPS FLIGHT FACILITY	28,703	33,455	499	5,251	18%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Texas	FUDS	WEBB AIR FORCE BASE	2,580	2,571	590	581	23%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Missouri	FUDS	WHITEMAN COMMUNICATIONS TRANSMITTER SITE	2,563	15,307	46	12,790	499%	Cost Estimate Change Unrelated to Change in Scope – Change in cost estimating methodology or model.
Alaska	FUDS	WILDWOOD AFS	561	1,185	166	790	141%	1) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 2) New Site.
Alaska	FUDS	YAKUTAT AFB	4,550	27,984	3,604	27,038	594%	1) Project Scope – Added cleanup phases as the project progresses (e.g., feasibility study or remedial action operation added to project scope). 2) Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling). 3) Standards or Regulations – Regulator-driven Change – A change in the project as a result of negotiations with the regulator (e.g., new requirement imposed by the regulator that increases project scope, delay in regulatory document review or approval). 4) New Site.

Appendix B: Causes of Increases in Cleanup Estimates

State	DoD Component	Installation Name	FY 2019 Cost Estimate Adjusted for Inflation (\$000)	FY 2020 Cost Estimate (\$000)	FY 2020 Funds Obligated (\$000)	Cost Estimate Change (\$000)	Cost Estimate Change (Percentage)	Reason(s)
Utah	FUDS	YELLOW JACKET TARGET AREA	8,444	14,307	97	5,960	71%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).
Pennsylvania	FUDS	YORK NAVAL ORDNANCE PLANT	92	68	77	53	57%	Project Scope – Added requirements due to other site-level project change (e.g., newly discovered contaminants, increased physical dimensions of the cleanup, additional risk pathway such as vapor intrusion (that is required and initiated by DoD), change in future property reuse, site reopened to address additional risk, additional sampling).