DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3A
Excavate, Segmented Gate Treatment & Onsite Disposal

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action - Operations (100 Year Duration)									
	Program Management									
	Coordination/Oversight of Technical Support	N/A								N/A
	Coordination with Agency Participants	N/A								N/A
	Cost and Schedule Control	N/A								N/A
	Ensure Compliance of Gov't Regulation	N/A								N/A
	Reviews	N/A								N/A
	Audit Preparation and Coordination	N/A								N/A
	Annual Operations and Maintenance Reports	N/A								N/A
	Total Cost (Per Year)									N/A
	Program Management Costs - 100 Year Duration	100 years	N/A							N/A
	Continued CFA Caretaker/Maintenance									
	Caretaker	N/A								N/A
	Fencing Maintenance	N/A								N/A
	Continued CFA Caretaker/Maintenance Cost Per Year									N/A
	Caretaker Cost - 100 Year Duration	100 years	N/A							N/A
	Operations, Maintenance, Materials and Disposal	N/A								N/A
	D&D of Facilities	N/A								N/A

DETAILED COST ESTIMATE (CONT.SHEET)

Project: OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3A
Excavate, Segmented Gate Treatment & Onsite Disposal

Type of Estimate: Planning File No: 3952-D Date: 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Surveillance and Monitoring (annual sampling & monitoring activities) - Assumes groundwater monitoring is not required.									
	Ground Water Sampling/Monitoring, Maint. Insp./Report	100 years								N/A
	Gamma Surveys using Hand Held Dectors - 1 per year	100 years		40	4,000	75	300,000			300,000
	5-Year Review Report	20 times	6,000					120,000		120,000
	note: gamma survey's will be required.									
	Surveillance and Monitoring Costs - 100 Year Duration									**420,000**

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3B
Excavate, Segmented Gate Treatment & Offsite Disposal

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	FFA/CO Management and Oversight									
	Program Management									
	Coordination/Oversight of Technical Support	1 person		640	640	75	48,000			48,000
	Coordination with Agency Participants	1 person		320	320	75	24,000			24,000
	Cost and Schedule Control	1 person		320	320	65	20,800			20,800
	Ensure Compliance of Gov't Regulation	1 person		160	160	70	11,200			11,200
	Quarterly and Yearly Reviews	1 person		160	160	65	10,400			10,400
	Audit Preparation and Coordination	1 person		160	160	65	10,400			10,400
	Total Cost (Per Year)									124,800
	Total Cost (Per Year Rounded)									125,000
	Program Management - .5 year duration during the design stages,	3.50 year	125,000					437,500		**437,500**
	a 2 year duration during the construction period and a 1 year duration after.									
	RA Document Preparation									
	RD/RA SOW									
	PreDesign Studies/Preliminary Scoping	3 person		80	240	75	18,000			18,000
	Design Criteria	1 person		40	40	75	3,000			3,000
	RD/RA SOW Preparation	1 person		80	80	75	6,000			6,000
	Reviews and Comment Resolution	1 person		360	360	75	27,000			27,000
	RD/RA SOW Cost									**54,000**
	RA Workplan									
	Preliminary Scoping	1 person		160	160	75	12,000			12,000
	RD/RA SOW Work Plan	1 person		260	260	75	19,500			19,500
	Reviews and Comment Resolution	1 person		420	420	75	31,500			31,500
	RA Workplan Cost									**63,000**

DETAILED COST ESTIMATE (CONT.SHEET)

Project: OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3B
Excavate, Segmented Gate Treatment & Offsite Disposal

Type of Estimate: Planning File No: 3952-D Date: 01/29/99 Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	RA Document Preparation (cont.)									
	Packaging, Shipping, Transportation Documentation Cost									
	Sampling and Analysis	1.0 person		240	240	75	18,000			18,000
	Hazard Classification	1.0 person		200	200	75	15,000			15,000
	Selection and Procurement of Packaging	1.0 person		80	80	75	6,000			6,000
	Reviews and Comment Resolution	1.0 person		520	520	75	39,000			39,000
	Packaging, Shipping, Transportation Documentation Cost									**78,000**
	Remedial Action Report									
	RA Report Preparation	1 person		320	320	75	24,000			24,000
	Reviews and Comment Resolution	1 person		320	320	75	24,000			24,000
	Remedial Action Report Cost									**48,000**
	WAG-Wide RA 5 Yr. Review - (Cost Per Each, Required (1/4) FTE For Years 1 thru 5; (1/4) FTE in (5) Yr. Increments for 6 thru 95)									
	5 Year Review Preparation	23 years		350	8,050	75	603,750			604,000
	Reviews and Comment Resolution	23 years		120	2,760	75	207,000			207,000
	WAG-Wide RA 5 Yr. Reviews For 100 Years									**811,000**
	RD Document Preparation									
	Safety Analysis Documentation (ASA & HSP)									
	Auditable Safety Analysis/Hazards Classification	2 person		160	320	75	24,000			24,000
	Unresolved Safety Questions	2 person		160	320	75	24,000			24,000
	Quality Assurance	1 person		30	30	75	2,250			2,250
	Reviews and Comment Resolution	2 person		335	670	75	50,250			50,250
	Safety Analysis Documentation Cost									**100,500**

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3B
Excavate, Segmented Gate Treatment & Offsite Disposal

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Sampling and Analysis Plan									
	Preliminary Scoping	1 person		320	320	75	24,000			24,000
	Field Sampling Plan Preparation	1 person		400	400	75	30,000			30,000
	Reviews and Comment Resolution	1 person		720	720	75	54,000			54,000
	Sampling and Analysis Plan Cost									**108,000**
	RD Document Preparation (cont.)									
	Pre-Final Inspection Report									
	Checklist Preparation	1 person		40	40	75	3,000			3,000
	Reviews and Comment Resolution	1 person		60	60	75	4,500			4,500
	Pre-Final Inspection Report Cost									**7,500**
	Remedial Design									
	Added Institutional Controls - 5 Yr. Review of Deed Restrictions with Governing Bodies and Public Comment Over a 100 Year Period; Total of 20 Reviews.									
	Legal Attorney and Env. Affairs at $10K ea.	20 each	10,000					200,000		200,000
	Total Added Institutional Controls - 100 Year Duration									**200,000**
	Title Design Construction Document Package									
	Remedial Design and Work Plan	1 person		40	40	75	3,000			3,000
	Siting and Surveying	1 lot		20	20	75	1,500			1,500
	Treatment Reseach and Specification Requirements	1 person		340	340	75	25,500			25,500
	Review and Revise Final Design	10 drwngs	2000					20,000		20,000
	Final Design of Construction Package	10 drwngs	3500					35,000		35,000
	Title Design Construction Document Package									**85,000**

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3B
Excavate, Segmented Gate Treatment & Offsite Disposal

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action -									
	Site Characterization - Sampling and Analysis									
	note: excavation volume = 200,000 sqft of site area x 10 ft of excavation depth/27 cuft/cuyd = 74,074 cuyds.									
	assuming excavation equals 30 cuyds per hour then 74,074 cuyds/30 cuyds per hour = 2,469 crew hours									
	2,469 crew hours / 8 hours per day x 75% efficiency factor = 411 days / 20 working days per month = 20.57 months.									
	Site Area	200,000 sqft								for information only
	Soil Volume	74,074 cuyd								for information only
	Excavation Duration	21 months								for information only
	SMO - Sample Prep, SOW, Analysis of Data, Tracking, etc.	2 year		2,008	4,016	70	281,120			281,120
	Characterization of extent: assume min of 10 samples per site; max of 1 sample per 1000 sqft of site area.									
	Gamma	200 samples	63					12,600		12,600
	Sample Collection - includes labels, shipping, documentation, etc.	200 samples		0.50	100	50	5,000			5,000
	Off Site Soil Respository Waste Acceptance Criteria (WAC) - 4 samples per site									
	Organic Sampling:									
	VOC 's	4 samples	160					640		640
	SVOC's	4 samples	320					1,280		1,280
	Pesticides	4 samples	120					480		480
	TCLP VOC's	4 samples	150					600		600
	TCLP SVOC's	4 samples	200					800		800
	TCLP Pesticides	4 samples	120					480		480
	TCLP Metals	4 samples	925					3,700		3,700
	RAD Sampling:									
	Gamma Spec.	4 samples	63					252		252
	Gross Alpha	4 samples	32					128		128
	Alpha Spec.	4 samples	652					2,608		2,608
	Site Characterization - Sampling and Analysis subtotal this page									309,688

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3B
Excavate, Segmented Gate Treatment & Offsite Disposal

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Site Characterization - Sampling and Analysis subtotal previous page									309,688
	RAD Sampling cont..									
	Beta Analysis	4 samples	85					340		340
	Inorganic Sampling:									
	Cyanides	4 samples	30					120		120
	Total Metals	4 samples	925					3,700		3,700
	Prep for Total Metals	4 samples	66					264		264
	Anions	4 samples	105					420		420
	Prep for Anions	4 samples	50					200		200
	pH	4 samples	18					72		72
	Sample Collection During Excavation -	21 months		172.00	3,612	50	180,600			180,600
	includes labels, shipping, documentation, etc.									
	Soil Characterization during Excavation @ 1 per 10 cuyd									
	Gamma Spec.	7,407 samples	63					466,641		466,641
	Site Verification Sampling: assume min. of 3 samples per site; max of 1 sample per 1000sqft of site area.									
	Gamma	200 samples	63					12,600		12,600
	Sample Collection - includes labels, shipping, documentation, etc.	200 samples		0.50	100	50	5,000			5,000
	Data Validation Based Upon 10% of the Sampling Cost	979,645 sample$	0.1					97,965		97,965
	Handling (5%), G&A(27%), PIF (4.5%) & Procurment (2.5%)	1,077,610 total$	0.4283					461,540		461,540
	Site Characterization - Sampling and Analysis									**1,539,000**

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3B
Excavate, Segmented Gate Treatment & Offsite Disposal

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Construction Subcontract - (to begin in the year 2000)									
	Note: This estimate only addresses the drain field north of the old CFA Sewage Treatment Plant. It is assumed that all other Sewage Treatment Plant restorations will be									
	done by the Operating Contractor at no cost to this project.									
	Temporary Utilities - water, power, etc.	1 lot	250000					250,000		250,000
	Excavation of Soils & Tiles, liquids will remain w/ soils	74,074 cuyd		0.035	2,592.59	150	388,889			388,889
	Screening/Crushing/Semented Gating of Soils (100%) - complete	74,074 cuyd	100					7,407,400		7,407,400
	Exporting of Soils (10%) to the Off Site Soil Respository	741 trckids		1	741	55	40,755			40,755
	Loader (2) support - assume 20 cuyd/hour	93 weeks		40	3,720	300	1,116,000			1,116,000
	Place Back and Compact Clean Soils (90%)	66,667 cuyd	4					266,668		266,668
	Import & Place 1' avg. Fill to Level Site - imported mat'ls on INEEL	7,408 cuyd	10					74,080		74,080
	Mobilization of Government Leased 74 cuyd rail gondolas to	100 railcars	GFE							
	the INEEL for shipment of soils.									
	Load, Ship & Return (railcars) to the an approved	100 railcars	GFE	4	400	150	60,060			60,060
	RCRA Off Site Facility for disposal using 74 cuyd railcars.									
	Treatment and Disposal of Soil - assumed to meet LLW criteria	7,407 cuyd	GFE							
	Revegetate Site	200,000 sqft	0.04					8,000		8,000
	D & D of Site Improvements	1 lot	150000					150,000		150,000
	Mobilization/Demobilization @ 3% of above construction cost	9,761,852 const$	0.03					292,856		292,856
	Training's	12 person		24	288	35	10,080			10,080
	Project Supervision	24 months		170	4,080	40	163,200			163,200
	Project Support Personnel - Safety & IH	24 months		340	8,160	35	285,600			285,600
	Construction Subcontract Subtotal this page									10,513,587

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3B
Excavate, Segmented Gate Treatment & Offsite Disposal

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Construction Subcontract Subtotal previous page									10,513,587
	Project Booties, Gloves, Masks, Signage, etc..	1 lot	25000					25,000		25,000
	Total Construction Subcontract Direct Cost									10,539,000
	Construction Subcontract Overhead and Profit @ 30%									3,161,700
	Total Construction Subcontract Direct and Indirect Cost									*13,701,000*
	GFE Disposal:									
	Mobilization of Government Leased 74 cuyd rail gondolas to	100 railcars	6000					600,600		600,600
	the INEEL for shipment of soils.									
	Load, Ship & Return (railcars) to the an approved	100 railcars	6000					600,600		600,600
	RCRA Off Site Facility for disposal using 74 cuyd railcars.									
	Treatment and Disposal of Soil	7,408 cuyd	400					2,963,200		2,963,200
	GFE Disposal Cost									*4,164,000*
	Procurement Fees @ 2.5%									*446,625*
	G&A and PIF Fee Allowance @ 33%									*5,895,450*
	Construction Subcontract & GFE - Total Amount									**24,207,000**
	Project/Construction Management Allowance									
	Project/Construction Management @ 22.06% of Const. Subcontract Cost									3,022,441
	Project/Construction Management Allowance									**3,022,441**

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3B
Excavate, Segmented Gate Treatment & Offsite Disposal

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action - Operations (100 Year Duration)									
	Program Management									
	Coordination/Oversight of Technical Support	N/A								N/A
	Coordination with Agency Participants	N/A								N/A
	Cost and Schedule Control	N/A								N/A
	Ensure Compliance of Gov't Regulation	N/A								N/A
	Reviews	N/A								N/A
	Audit Preparation and Coordination	N/A								N/A
	Annual Operations and Maintenance Reports	N/A								N/A
	Total Cost (Per Year)									N/A
	Program Management Costs - 100 Year Duration	100 years	N/A							N/A
	Continued CFA Caretaker/Maintenance									
	Caretaker	N/A								N/A
	Fencing Maintenance	N/A								N/A
	Continued CFA Caretaker/Maintenance Cost Per Year									N/A
	Caretaker Cost - 100 Year Duration	100 years	N/A							N/A
	Operations, Maintenance, Materials and Disposal	N/A								N/A
	D&D of Facilities	N/A								N/A

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #3B
Excavate, Segmented Gate Treatment & Offsite Disposal

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Surveillance and Monitoring (annual sampling & monitoring activities) - Assumes groundwater monitoring is not required.									
	Ground Water Sampling/Monitoring, Maint. Insp./Report	100 years								N/A
	Gamma Surveys using Hand Held Dectors - 1 per year	100 years		40	4,000	75	300,000			300,000
	5-Year Review Report	20 times	6,000					120,000		120,000
	note: gamma survey's will be required.									
	Surveillance and Monitoring Costs - 100 Year Duration									420,000

DETAILED COST ESTIMATE (CONT.SHEET)

Project: OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #4
Containment with ET - Type Cap Cover

Type of Estimate: Planning File No: 3952-D Date: 01/29/99 Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	FFA/CO Management and Oversight									
	Program Management									
	Coordination/Oversight of Technical Support	1 person		640	640	75	48,000			48,000
	Coordination with Agency Participants	1 person		320	320	75	24,000			24,000
	Cost and Schedule Control	1 person		320	320	65	20,800			20,800
	Ensure Compliance of Gov't Regulation	1 person		160	160	70	11,200			11,200
	Quarterly and Yearly Reviews	1 person		160	160	65	10,400			10,400
	Audit Preparation and Coordination	1 person		160	160	65	10,400			10,400
	Total Cost (Per Year)									124,800
	Total Cost (Per Year Rounded)									125,000
	Program Management - .5 year duration during the design stages,	2.50 year	125,000					312,500		**312,500**
	a 1 year duration during the construction period and a 1 year duration after.									
	RA Document Preparation									
	RD/RA SOW									
	PreDesign Studies/Preliminary Scoping	3 person		80	240	75	18,000			18,000
	Design Criteria	1 person		40	40	75	3,000			3,000
	RD/RA SOW Preparation	1 person		80	80	75	6,000			6,000
	Reviews and Comment Resolution	1 person		360	360	75	27,000			27,000
	RD/RA SOW Cost									**54,000**
	RA Workplan									
	Preliminary Scoping	1 person		160	160	75	12,000			12,000
	RD/RA SOW Work Plan	1 person		260	260	75	19,500			19,500
	Reviews and Comment Resolution	1 person		420	420	75	31,500			31,500
	RA Workplan Cost									**63,000**

DETAILED COST ESTIMATE (CONT.SHEET)

Project: OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #4
Containment with ET - Type Cap Cover

Type of Estimate: Planning File No: 3952-D Date: 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	RA Document Preparation (cont.)									
	Packaging, Shipping, Transportation Documentation Cost									
	Sampling and Analysis	N/A								N/A
	Hazard Classification	N/A								N/A
	Selection and Procurement of Packaging	N/A								N/A
	Reviews and Comment Resolution	N/A								N/A
	Packaging, Shipping, Transportation Documentation Cost									N/A
	Remedial Action Report									
	RA Report Preparation	1 person		320	320	75	24,000			24,000
	Reviews and Comment Resolution	1 person		320	320	75	24,000			24,000
	Remedial Action Report Cost									48,000
	WAG-Wide RA 5 Yr. Review - (Cost Per Each, Required (1/4) FTE For Years 1 thru 5; (1/4) FTE in (5) Yr. Increments for 6 thru 95)									
	5 Year Review Preparation	23 years		350	8,050	75	603,750			604,000
	Reviews and Comment Resolution	23 years		120	2,760	75	207,000			207,000
	WAG-Wide RA 5 Yr. Reviews For 100 Years									811,000
	RD Document Preparation									
	Safety Analysis Documentation (ASA & HSP)									
	Auditable Safety Analysis/Hazards Classification	2 person		160	320	75	24,000			24,000
	Unresolved Safety Questions	2 person		160	320	75	24,000			24,000
	Quality Assurance	1 person		30	30	75	2,250			2,250
	Reviews and Comment Resolution	2 person		335	670	75	50,250			50,250
	Safety Analysis Documentation Cost									100,500

DETAILED COST ESTIMATE (CONT.SHEET)

Project: OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #4
Containment with ET - Type Cap Cover

Type of Estimate: Planning File No: 3952-D Date: 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Sampling and Analysis Plan									
	Preliminary Scoping	1 person		320	320	75	24,000			24,000
	Field Sampling Plan Preparation	1 person		400	400	75	30,000			30,000
	Reviews and Comment Resolution	1 person		720	720	75	54,000			54,000
	Sampling and Analysis Plan Cost									108,000
	RD Document Preparation (cont.)									
	Pre-Final Inspection Report									
	Checklist Preparation	1 person		40	40	75	3,000			3,000
	Reviews and Comment Resolution	1 person		60	60	75	4,500			4,500
	Pre-Final Inspection Report Cost									7,500
	Remedial Design									
	Added Institutional Controls - 5 Yr. Review of Deed Restrictions with Governing Bodies and Public Comment Over a 100 Year Period; Total of 20 Reviews.									
	Legal Attorney and Env. Affairs at $10K ea.	2 person		160	100	100	10,000			10,000
	Total Added Institutional Controls - 100 Year Duration	20 each	10,000							200,000
	Title Design Construction Document Package									
	Remedial Design and Work Plan	1 person		40	40	75	3,000			3,000
	Siting and Surveying	1 lot		20	20	75	1,500			1,500
	Review and Revise Final Design	10 drwngs	2000					20,000		20,000
	Final Design of Construction Package	10 drwngs	3500					35,000		35,000
	Title Design Construction Document Package									59,500

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #4
Containment with ET - Type Cap Cover

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action -									
	Site Characterization - Sampling and Analysis									
	SMO - Sample Prep, SOW, Analysis of Data, Tracking, etc.	1 year		2,008	2,008	70	140,560			140,560
	Total Gamma (1 sample per 1000 sqft) - Gamma Spectroscopy Only	200 sample	63					12,600		12,600
	Sample Collection - includes labels, shipping, documentation, etc.	200 samples		0.50	100	50	5,000			5,000
	Data Validation Based Upon 10% of the Sampling Cost	158,160 sample$	0.1					15,816		15,816
	Handling (5%), G&A(27%), PIF (4.5%) & Procurment (2.5%)	173,976 total$	0.4283					74,514		74,514
	Site Characterization - Sampling and Analysis									**248,000**
	Construction Subcontract - (to begin in the year 2000)									
	Note: This estimate only addresses the drain field north of the old CFA Sewage Treatment Plant (STP), it's assumed all other STP restorations will be by the Operating Contractor (									
	Clear and Grub Site	250,000 sqft	0.05					12,500		12,500
	Excavation of Perimeter Gravel Drain System	1,500 cuyd	8					12,000		12,000
	Install Gravel for Drain	1,500 cuyd	35					52,500		52,500
	Install Perimeter Drain Piping	2,300 lnft	18					41,400		41,400
	Install Geotextile Layer	25,000 sqyd	9					225,000		225,000
	Import & Place 2' avg. Fill to Level Site - imported mat'ls on INEEL	15,000 cuyd	8					120,000		120,000
	Import & Place 24" Cobble Layer - imported mat'ls from Idaho Falls	15,000 cuyd	25					375,000		375,000
	Import & Place 6" Gravel Layer - imported mat'ls from Idaho Falls	3,800 cuyd	35					133,000		133,000
	Import & Place 4.1' Soil Layer - imported mat'ls on INEEL	31,000 cuyd	8					248,000		248,000
	Import & Place 6" Gravel Mulch - imported mat'ls from Idaho Falls	3,800 cuyd	40					152,000		152,000
	Misc. Revegetation & Reclaimation	250,000 sqft	0.05					12,500		12,500
	Install Perimeter Fencing w/ Gates and Signage	2,500 lnft	20					50,000		50,000
	Mobilization/Demobilization @ 3% of above construction cost	1,433,900 const$	0.03					43,017		43,017
	Project Supervision	12 months		170	2,040	40	81,600			81,600
	Project Support Personnel - Safety & IH	12 months		340	4,080	35	142,800			142,800
	Construction Subcontract Subtotal this page									1,701,317

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
Alternative #4
Containment with ET - Type Cap Cover

Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
Prep'd By: J. R. Baker

ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Construction Subcontract Subtotal previous page									1,701,317
	Project Booties, Gloves, Masks, Signage, etc..	1 lot	5000					5,000		5,000
	Construction Surveying and Staking	9 months		170	1,530	95	145,350			145,350
	Training	12 person		24	288	35	10,080			10,000
	Total Construction Subcontract Direct Cost									1,862,000
	Construction Subcontract Overhead and Profit @ 30%									558,600
	Total Construction Subcontract Direct and Indirect Cost									2,421,000
	Procurement Fees @ 2.5%									60,525
	G&A and PIF Fee Allowance @ 33%									798,930
	Construction Subcontract - Total Amount									**3,280,000**
	Project/Construction Management Allowance									
	Project/Construction Management @ 22.06% of Const. Subcontract Cost									534,000
	Project/Construction Management Allowance									534,000

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
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Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
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ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action - Operations (100 Year Duration)									
	Program Management									
	Coordination/Oversight of Technical Support	1 person		200	200	75	15,000			15,000
	Coordination with Agency Participants	1 person		80	80	75	6,000			6,000
	Cost and Schedule Control	1 person		59	59	65	3,848			3,848
	Ensure Compliance of Gov't Regulation	1 person		32	32	70	2,240			2,240
	Reviews	1 person		32	32	65	2,080			2,080
	Audit Preparation and Coordination	1 person		32	32	65	2,080			2,080
	Annual Operations and Maintenance Reports	1 person		40	40	65	2,600			2,600
	Total Cost (Per Year)									33,850
	Program Management Costs - 100 Year Duration	100 years	33,850					3,385,000		**3,385,000**
	Continued CFA Caretaker/Maintenance									
	Caretaker	1 person		188	188	75	14,100			14,100
	Fencing Maintenance	2500 lnft	1					2,500		2,500
	Cap Maintenance	200,000 sqft	0.04					8,000		8,000
	Continued CFA Caretaker/Maintenance Cost Per Year									24,600
	Caretaker Cost - 100 Year Duration	100 years	24,600					2,460,000		**2,460,000**
	Operations, Maintenance, Materials and Disposal	N/A								**N/A**
	D&D of Facilities	N/A								**N/A**

DETAILED COST ESTIMATE (CONT.SHEET)

Project OU 4-13 Waste Area Group (WAG) 4 FS Cost Estimates
Central Facilities Area (CFA) - 08: Sewage Treatment Plant Drainfield
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Type of Estimate: Planning **File No:** 3952-D **Date:** 01/29/99
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ACCT. NO.	DESCRIPTION	QUANTITY UNIT	MAT'L UT. COST	LBR/EQP UNIT HRS	LBR/EQP TOTAL HRS	LBR/EQP RATE	LBR/EQP COST	MAT'L COST	OTHER COST	TOTAL COST
	Surveillance and Monitoring (annual sampling & monitoring activities) - Assumes groundwater monitoring is not required.									
	Ground Water Sampling/Monitoring, Maint. Insp./Report	N/A								N/A
	Gamma Surveys using Hand Held Detectors - 1 per year	100 years		40	4,000	75	300,000			300,000
	5-Year Review Report	20 times	6,000					120,000		120,000
	note: gamma survey's will be required.									
	Surveillance and Monitoring Costs - 100 Year Duration									420,000