



Environmental Consultants and Contractors



43045 John Mosby Highway
Chantilly, Virginia 20152
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www.eccfirst.com

Summary of Estimated Environmental Costs

1300 H Street NE

Prepared: 06-05-2015

THIS IS A FIRST DRAFT ENVIRONMENTAL ESTIMATE
THIS ESTIMATE IS MEANT FOR DISCUSSION PURPOSES ONLY

One Level Garage Scenario

12 Feet Deep Garage Excavation Assumptions

1. Non-hazardous petroleum (TPH)-impacted soil will be encountered.
 - a. Excavation of entire site (11,000 square feet) to 12 feet below grade.
 - b. Total excavation of 5,000 cubic yards (CYs = $11,000 \times 12/27$).
 - c. 100% of site is contaminated with non-hazardous levels of petroleum and should be classified as TPH-impacted soil.
3. Construction dewatering will be required.
 - a. Discharge to storm sewer under DC Water TDA Permit for 6 to 9 months.
 - b. Discharge rate estimated at 100 gallons per minute.
 - c. DC Water non-wastewater discharge fee of \$2.33 per 100 cubic feet of water.
 - d. Based on the detected contaminant levels, treatment for discharge will be necessary.
4. Environmental oversight will be conducted for four (3) to six (4) months to complete excavation to sub-grade.
5. Vapor Intrusion Mitigation will be necessary (Vapor Barrier, minimum 30-mil thick)
6. The site will enter and complete a DDOE Voluntary Remediation Program (VRAP or VCP).
8. Orphaned Underground Storage Tanks (UST) are expected.

All assumptions are subject to change.

Summary of Estimated Environmental Costs	Low Range	High Range
1. Non-Hazardous, TPH-Impacted Soil Transportation and Disposal	\$315,000	\$405,000
2. DC Water TDA Permit Compliance	\$212,800	\$303,700
3. Construction Oversight	\$70,000	\$90,000
4. Vapor Intrusion Mitigation	\$102,000	\$127,500
5. Voluntary Remediation Program Implementation	\$112,800	\$141,000
6. UST Closures	\$8,000	\$16,000
Total Estimated Environmental Costs:	\$820,600	\$1,083,200

Limitations: This estimate was based upon information provided to ECC, results of our October 2013 Phase II ESA, our experience in the area with similar projects, and in accordance with generally accepted professional environmental practice under similar circumstances. Should additional information become available which would affect the assumptions and conclusions of this estimate, ECC reserves the

Summary of Estimated Environmental Costs
1300 H Street NE

One Level Garage Excavation Scenario
June 5, 2015

1. Non-Hazardous, TPH-Impacted Soil Transportation and Disposal

Non-Hazardous TPH-Impacted Soil Calculations	Excavation Yards (CYs)	Estimated Impacted Percentage	Yards to Tons Conversion	Estimated Impacted Tons
TPH-Impacted Soil. Estimate assumes 100% of excavated material is impacted with non-hazardous levels of petroleum (TPH).	5,000	100%	1.80	9,000
Total Estimated TPH Impacted Tons				9,000

Non-Hazardous TPH-Impacted Soil T&D Cost	Cost per Ton	Tons	Estimated Cost
Low-range potential ADD cost under typical GMP Construction Contract	\$35	9,000	\$315,000
High-range potential ADD cost under typical GMP Construction Contract	\$45	9,000	\$405,000

2. DC Water TDA Permit Compliance

One Time Costs (Permit, System Mob/Demob)	Unit	Total Units	Price/unit	Total Cost
DC Water TDA Permit	each	1	\$1,000	\$1,000
System Mobilization	each	1	\$10,000	\$10,000
System Cleaning and Demobilization	each	1	\$20,000	\$20,000
Estimated TDA Permit Application Cost				\$31,000

Monthly Permit Compliance Costs	Unit	Total Units	Price/unit	Total Cost
Discharge Monitoring Sample Collection/Analysis/Report	each	1	\$2,000	\$2,000
System Rental and Operations and Maintenance (30-day Cycle)	each	1	\$15,000	\$15,000
Monthly Non-Wastewater Discharge Fees	CCF	5700	\$2.33	\$13,300
Estimated Monthly Discharge Compliance Cost				\$30,300

Estimated Low Range Discharge Compliance Cost	6 Months	\$212,800
Estimated High Range Discharge Compliance Cost	9 Months	\$303,700

Notes:

1. Treatment system is designed to remove contaminants for TDA Permit compliance only; system is not designed to remove sediment or iron fouling.
2. Treatment system requires electrical power provided by others; estimate does not include cost for power generation.
3. Treatment system designed discharge rate of 100 gpm.
4. DC Water Non-Wastewater Discharge Fee per 100 CCF: 100 GPM = 190 CCF per day = 5700 CCF per month

Summary of Estimated Environmental Costs
1300 H Street NE

One Level Garage Excavation Scenario
June 5, 2015

3. Construction Oversight

Pre-Construction Work

	Unit	Total Units	Price/unit	Total Cost
Principal	hour	8	\$175	\$1,400
Senior Professional	hour	24	\$130	\$3,120
EHASP and IMMP Preparation	plan	1	\$2,000	\$2,000
Non-Hazardous TPH-Impacted Soil Disposal Facility Sampling and Approvals	each	1	\$3,500	\$3,500
Estimated Pre-Construction Cost				\$10,000

Monthly EHASP and IMMP Implementation

	Unit	Total Units	Price/unit	Total Cost
Management	hour	20	\$130	\$2,600
Field Staff Day Rate (labor, mobilization, single field instrument)	day	20	\$800	\$16,000
Laboratory Analytical (estimated)	estimated	1	\$1,000	\$1,000
Estimated Monthly Oversight Cost (4 weeks/20 Days)				\$20,000

Low Range Estimated Oversight Cost 3 Months \$70,000

High Range Estimated Oversight Cost 4 Months \$90,000

4. Vapor Intrusion Mitigation

Estimated Material and Installation Costs

	Unit	Total Units	Price/unit	Total Cost
Upgraded Floor Waterproofing/Vapor Barrier	square foot	11,000	\$6	\$66,000
Upgraded Wall Waterproofing/Vapor Barrier (500 ft site perimeter x 24 feet)	square foot	6,000	\$6	\$36,000
Estimated Cost for Upgraded Waterproofing/Vapor Barrier				\$102,000
Upgraded Waterproofing/Vapor Barrier Cost with 25% Contingency				\$127,500

5. Voluntary Remediation Program Implementation

Estimated Costs for VRAP or VCP Elements/Tasks

	Unit	Total Units	Price/unit	Total Cost
Principal (Management/Consulting)	hour	40	\$175	\$7,000
Senior Professional (Management/Consulting)	hour	160	\$130	\$20,800
Enrollment Fee / Application	each	1	\$10,000	\$10,000
Reporting Costs (SCR/RAP/RA/DOC)	estimated	1	\$50,000	\$50,000
Post Excavation Laboratory Analyses	estimated	1	\$25,000	\$25,000
Estimated VRP Elements/Tasks Cost				\$112,800
With a 25% Contingency				\$141,000

6. UST Closures

Tank Closure

	Price/unit
Tank Removal/Permitting/Closure Oversight/Reporting for one (1) 1,000 gallon UST. Additional fees will apply for tanks larger than 1,000 gallons.	\$4,000

Estimated Low Range UST Closure Cost Based on 2 Tanks \$8,000

Estimated High Range UST Closure Cost Based on 4 Tanks \$16,000



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Summary of Estimated Environmental Costs

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Prepared: 06-03-2015

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Two Level Garage Scenario

24 Feet Deep Garage Excavation Assumptions

1. Non-hazardous petroleum (TPH)-impacted soil will be encountered.
 - a. Excavation of entire site (11,000 square feet) to 24 feet below grade.
 - b. Total excavation of 10,000 cubic yards (CYs = 11,000*24/27).
 - c. 100% of site is contaminated with non-hazardous levels of petroleum and should be classified as TPH-impacted soil.
2. Hazardous chlorinated solvent (CVOC)-impacted soil will likely be encountered.
 - a. Chlorinated solvent impacted soil identified at depth adjacent to off site dry cleaner.
 - b. Estimate of 1,000 tons of CVOC-impacted soil will be handled as hazardous material.
3. Construction dewatering will be required.
 - a. Discharge to storm sewer under DC Water TDA Permit for 9 to 12 months.
 - b. Discharge rate estimated at 100 gallons per minute.
 - c. DC Water non-wastewater discharge fee of \$2.33 per 100 cubic feet of water.
 - d. Based on the detected contaminant levels, treatment for discharge will be necessary.
4. Environmental oversight will be conducted for four (4) to six (6) months to complete excavation to sub-grade.
5. Vapor Intrusion Mitigation will be necessary (Vapor Barrier, minimum 30-mil thick)
6. The site will enter and complete a DDOE Voluntary Remediation Program (VRAP or VCP).
7. Post-construction sump discharge permitting and treatment will be necessary.
8. Orphaned Underground Storage Tanks (UST) are expected.

All assumptions are subject to change.

Summary of Estimated Environmental Costs	Low Range	High Range
1. Non-Hazardous, TPH-Impacted Soil Transportation and Disposal	\$630,000	\$810,000
2. Hazardous, CVOC-Impacted Soil Transportation and Disposal	\$303,200	\$553,200
3. DC Water TDA Permit Compliance	\$303,700	\$394,600
4. Construction Oversight	\$90,000	\$130,000
5. Vapor Intrusion Mitigation	\$138,000	\$172,500
6. Voluntary Remediation Program Implementation	\$112,800	\$141,000
7. Post Construction Sump Discharge Compliance	\$330,000	\$530,000
8. UST Closures	\$8,000	\$16,000
Total Estimated Environmental Costs:	\$1,915,700	\$2,747,300

Limitations: This estimate was based upon information provided to ECC, results of our October 2013 Phase II ESA, our experience in the area with similar projects, and in accordance with generally accepted professional environmental practice under similar circumstances. Should additional information become available which would affect the assumptions and conclusions of this estimate, ECC reserves the right to amend our opinions and professional judgments.

1. Non-Hazardous, TPH-Impacted Soil Transportation and Disposal

Non-Hazardous TPH-Impacted Soil Calculations	Excavation Yards (CYs)	Estimated Impacted Percentage	Yards to Tons Conversion	Estimated Impacted Tons
TPH-Impacted Soil. Estimate assumes 100% of excavated material is impacted with non-hazardous levels of petroleum (TPH).	10,000	100%	1.80	18,000
Total Estimated TPH Impacted Tons				18,000

Non-Hazardous TPH-Impacted Soil T&D Cost	Cost per Ton	Tons	Estimated Cost
Low-range potential ADD cost under typical GMP Construction Contract	\$35	18,000	\$630,000
High-range potential ADD cost under typical GMP Construction Contract	\$45	18,000	\$810,000

2. Hazardous, CVOC-Impacted Soil Transportation and Disposal

Hazardous Soil Management and Specialized Excavation	Unit	Total Units	Price/unit	Total Cost
Principal	hour	16	\$175	\$2,800
Senior Professional / Management	hour	80	\$130	\$10,400
Hazardous Material Excavation Oversight	day	5	\$2,000	\$10,000
Hazardous Material Excavator Mob/Demob/Cleaning	each	1	\$10,000	\$10,000
Hazardous Material Excavator	day	5	\$4,000	\$20,000
Hazardous Soil Management and Specialized Excavation Estimated Cost				\$53,200

Estimated Hazardous CVOC-Impacted Soil T&D Cost	Cost per Ton	Tons	Estimated Cost
Low-range Transportation and Disposal Cost	\$250	1,000	\$250,000
High-range Transportation and Disposal Cost	\$500	1,000	\$500,000

Estimated Low Range Hazardous CVOC Soil Cost: **\$303,200**
Estimated High Range Hazardous CVOC Soil Cost: **\$553,200**

Summary of Estimated Environmental Costs
1300 H Street NE

Two Level Garage Excavation Scenario
June 3, 2015

3. DC Water TDA Permit Compliance

One Time Costs (Permit, System Mob/Demob)

	Unit	Total Units	Price/unit	Total Cost
DC Water TDA Permit	each	1	\$1,000	\$1,000
System Mobilization	each	1	\$10,000	\$10,000
System Cleaning and Demobilization	each	1	\$20,000	\$20,000
Estimated TDA Permit Application Cost				\$31,000

Monthly Permit Compliance Costs

	Unit	Total Units	Price/unit	Total Cost
Discharge Monitoring Sample Collection/Analysis/Report	each	1	\$2,000	\$2,000
System Rental and Operations and Maintenance (30-day Cycle)	each	1	\$15,000	\$15,000
Monthly Non-Wastewater Discharge Fees	CCF	5700	\$2.33	\$13,300
Estimated Monthly Discharge Compliance Cost				\$30,300

Estimated Low Range Discharge Compliance Cost	9 Months	\$303,700
Estimated High Range Discharge Compliance Cost	12 Months	\$394,600

Notes:

1. Treatment system is designed to remove contaminants for TDA Permit compliance only; system is not designed to remove sediment or iron fouling.
2. Treatment system requires electrical power provided by others; estimate does not include cost for power generation.
3. Treatment system designed discharge rate of 100 gpm.
4. DC Water Non-Wastewater Discharge Fee per 100 CCF: 100 GPM = 190 CCF per day = 5700 CCF per month

4. Construction Oversight

Pre-Construction Work

	Unit	Total Units	Price/unit	Total Cost
Principal	hour	8	\$175	\$1,400
Senior Professional	hour	24	\$130	\$3,120
EHASP and IMMP Preparation	plan	1	\$2,000	\$2,000
Non-Hazardous TPH-Impacted Soil Disposal Facility Sampling and Approvals	each	1	\$3,500	\$3,500
Estimated Pre-Construction Cost				\$10,000

Monthly EHASP and IMMP Implementation

	Unit	Total Units	Price/unit	Total Cost
Management	hour	20	\$130	\$2,600
Field Staff Day Rate (labor, mobilization, single field instrument)	day	20	\$800	\$16,000
Laboratory Analytical (estimated)	estimated	1	\$1,000	\$1,000
Estimated Monthly Oversight Cost (4 weeks/20 Days)				\$20,000

Low Range Estimated Oversight Cost	4 Months	\$90,000
High Range Estimated Oversight Cost	6 Months	\$130,000

Summary of Estimated Environmental Costs
1300 H Street NE

Two Level Garage Excavation Scenario
June 3, 2015

5. Vapor Intrusion Mitigation

Estimated Material and Installation Costs

	Unit	Total Units	Price/unit	Total Cost
Upgraded Floor Waterproofing/Vapor Barrier	square foot	11,000	\$6	\$66,000
Upgraded Wall Waterproofing/Vapor Barrier (500 ft site perimeter x 24 feet)	square foot	12,000	\$6	\$72,000
Estimated Cost for Upgraded Waterproofing/Vapor Barrier				\$138,000
Upgraded Waterproofing/Vapor Barrier Cost with 25% Contingency				\$172,500

6. Voluntary Remediation Program Implementation

Estimated Costs for VRAP or VCP Elements/Tasks

	Unit	Total Units	Price/unit	Total Cost
Principal (Management/Consulting)	hour	40	\$175	\$7,000
Senior Professional (Management/Consulting)	hour	160	\$130	\$20,800
Enrollment Fee / Application	each	1	\$10,000	\$10,000
Reporting Costs (SCR/RAP/RA/DOC)	estimated	1	\$50,000	\$50,000
Post Excavation Laboratory Analyses	estimated	1	\$25,000	\$25,000
Estimated VRP Elements/Tasks Cost				\$112,800
With a 25% Contingency				\$141,000

7. Post Construction Sump Discharge Compliance

One Time Costs (Permit, System Design/Installation)

	Unit	Total Units	Price/unit	Total Cost
DC Water Non-Industrial Discharge Permit	each	1	\$5,000	\$5,000
System Design	each	1	\$25,000	\$25,000
System Installation (assume 100 GPM max flow)	each	1	\$100,000	\$100,000
Estimated One-Time Costs for Permanent Sump Discharge				\$130,000

Permanent Discharge Permit Compliance Costs

	Unit	Total Units	Price/unit	Total Cost
Discharge Monitoring Sample Collection/Analysis/Report	each	2	\$2,500	\$5,000
System O&M (3-year Cycle). Includes Maintenance Visits and System Clean-out every 3 years. Cost presented as a yearly pro-rated cost over the 3-year cycle	year	1	\$15,000	\$15,000
Estimated Yearly Discharge Compliance Cost				\$20,000

Permanent Sump Discharge Compliance Cost for	10 years	\$330,000
Permanent Sump Discharge Compliance Cost for	20 years	\$530,000

8. UST Closures

Tank Closure

	Price/unit
Tank Removal/Permitting/Closure Oversight/Reporting for one (1) 1,000 gallon UST. Additional fees will apply for tanks larger than 1,000 gallons.	\$4,000

Estimated Low Range UST Closure Cost Based on	2 Tanks	\$8,000
Estimated High Range UST Closure Cost Based on	4 Tanks	\$16,000



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Summary of Estimated Environmental Costs

1300 H Street NE

Prepared: 06-12-2015

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Two point Five Level Garage Scenario

60% 36 Feet Deep and 40% 24 Feet Deep Garage Excavation Assumptions

1. Non-hazardous petroleum (TPH)-impacted soil will be encountered.
 - a. Excavation of 60% of the site to 36 feet below grade and 40% of the site to 24 feet below grade.
 - b. Total excavation of 13,000 cubic yards (CYs = $(6,600 \times 36/27) + (4,400 \times 24/27)$).
 - c. 100% of site is contaminated with non-hazardous levels of petroleum and should be classified as TPH-impacted soil.
2. Hazardous chlorinated solvent (CVOC)-impacted soil will likely be encountered.
 - a. Chlorinated solvent impacted soil identified at depth adjacent to off site dry cleaner.
 - b. Estimate of 2,000 tons of CVOC-impacted soil will be handled as hazardous material.
3. Construction dewatering will be required.
 - a. Discharge to storm sewer under DC Water TDA Permit for 10 to 14 months.
 - b. Discharge rate estimated at 100 gallons per minute.
 - c. DC Water non-wastewater discharge fee of \$2.33 per 100 cubic feet of water.
 - d. Based on the detected contaminant levels, treatment for discharge will be necessary.
4. Environmental oversight will be conducted for five (5) to seven (7) months to complete excavation to sub-grade.
5. Vapor Intrusion Mitigation will be necessary (Vapor Barrier, minimum 30-mil thick)
6. The site will enter and complete a DDOE Voluntary Remediation Program (VRAP or VCP).
7. Post-construction sump discharge permitting and treatment will be necessary.
8. Orphaned Underground Storage Tanks (UST) are expected.

All assumptions are subject to change.

Summary of Estimated Environmental Costs	Low Range	High Range
1. Non-Hazardous, TPH-Impacted Soil Transportation and Disposal	\$819,000	\$1,053,000
2. Hazardous, CVOC-Impacted Soil Transportation and Disposal	\$583,200	\$1,083,200
3. DC Water TDA Permit Compliance	\$303,700	\$455,200
4. Construction Oversight	\$110,000	\$150,000
5. Vapor Intrusion Mitigation	\$159,600	\$199,500
6. Voluntary Remediation Program Implementation	\$112,800	\$141,000
7. Post Construction Sump Discharge Compliance	\$330,000	\$530,000
8. UST Closures	\$8,000	\$16,000
Total Estimated Environmental Costs:	\$2,426,300	\$3,627,900

Limitations: This estimate was based upon information provided to ECC, results of our October 2013 Phase II ESA, our experience in the area with similar projects, and in accordance with generally accepted professional environmental practice under similar circumstances. Should additional information become available which would affect the assumptions and conclusions of this estimate, ECC reserves the right to amend our opinions and professional judgments.

Summary of Estimated Environmental Costs
1300 H Street NE

Two point Five Level Garage Excavation Scenario
June 12, 2015

1. Non-Hazardous, TPH-Impacted Soil Transportation and Disposal

Non-Hazardous TPH-Impacted Soil Calculations	Excavation Yards (CYs)	Estimated Impacted Percentage	Yards to Tons Conversion	Estimated Impacted Tons
TPH-Impacted Soil. Estimate assumes 100% of excavated material is impacted with non-hazardous levels of petroleum (TPH).	13,000	100%	1.80	23,400
Total Estimated TPH Impacted Tons				23,400

Non-Hazardous TPH-Impacted Soil T&D Cost	Cost per Ton	Tons	Estimated Cost
Low-range potential ADD cost under typical GMP Construction Contract	\$35	23,400	\$819,000
High-range potential ADD cost under typical GMP Construction Contract	\$45	23,400	\$1,053,000

2. Hazardous, CVOC-Impacted Soil Transportation and Disposal

Hazardous Soil Management and Specialized Excavation	Unit	Total Units	Price/unit	Total Cost
Principal	hour	16	\$175	\$2,800
Senior Professional / Management	hour	80	\$130	\$10,400
Hazardous Material Excavation Oversight	day	10	\$2,000	\$20,000
Hazardous Material Excavator Mob/Demob/Cleaning	each	1	\$10,000	\$10,000
Hazardous Material Excavator	day	10	\$4,000	\$40,000
Hazardous Soil Management and Specialized Excavation Estimated Cost				\$83,200

Estimated Hazardous CVOC-Impacted Soil T&D Cost	Cost per Ton	Tons	Estimated Cost
Low-range Transportation and Disposal Cost	\$250	2,000	\$500,000
High-range Transportation and Disposal Cost	\$500	2,000	\$1,000,000

Estimated Low Range Hazardous CVOC Soil Cost: **\$583,200**
 Estimated High Range Hazardous CVOC Soil Cost: **\$1,083,200**

Summary of Estimated Environmental Costs
1300 H Street NE

Two point Five Level Garage Excavation Scenario
June 12, 2015

3. DC Water TDA Permit Compliance

One Time Costs (Permit, System Mob/Demob)

	Unit	Total Units	Price/unit	Total Cost
DC Water TDA Permit	each	1	\$1,000	\$1,000
System Mobilization	each	1	\$10,000	\$10,000
System Cleaning and Demobilization	each	1	\$20,000	\$20,000
Estimated TDA Permit Application Cost				\$31,000

Monthly Permit Compliance Costs

	Unit	Total Units	Price/unit	Total Cost
Discharge Monitoring Sample Collection/Analysis/Report	each	1	\$2,000	\$2,000
System Rental and Operations and Maintenance (30-day Cycle)	each	1	\$15,000	\$15,000
Monthly Non-Wastewater Discharge Fees	CCF	5700	\$2.33	\$13,300
Estimated Monthly Discharge Compliance Cost				\$30,300

Estimated Low Range Discharge Compliance Cost	9 Months	\$303,700
Estimated High Range Discharge Compliance Cost	14 Months	\$455,200

Notes:

1. Treatment system is designed to remove contaminants for TDA Permit compliance only; system is not designed to remove sediment or iron fouling.
2. Treatment system requires electrical power provided by others; estimate does not include cost for power generation.
3. Treatment system designed discharge rate of 100 gpm.
4. DC Water Non-Wastewater Discharge Fee per 100 CCF: 100 GPM = 190 CCF per day = 5700 CCF per month

4. Construction Oversight

Pre-Construction Work

	Unit	Total Units	Price/unit	Total Cost
Principal	hour	8	\$175	\$1,400
Senior Professional	hour	24	\$130	\$3,120
EHASP and IMMP Preparation	plan	1	\$2,000	\$2,000
Non-Hazardous TPH-Impacted Soil Disposal Facility Sampling and Approvals	each	1	\$3,500	\$3,500
Estimated Pre-Construction Cost				\$10,000

Monthly EHASP and IMMP Implementation

	Unit	Total Units	Price/unit	Total Cost
Management	hour	20	\$130	\$2,600
Field Staff Day Rate (labor, mobilization, single field instrument)	day	20	\$800	\$16,000
Laboratory Analytical (estimated)	estimated	1	\$1,000	\$1,000
Estimated Monthly Oversight Cost (4 weeks/20 Days)				\$20,000

Low Range Estimated Oversight Cost	5 Months	\$110,000
High Range Estimated Oversight Cost	7 Months	\$150,000

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Two point Five Level Garage Excavation Scenario
June 12, 2015

5. Vapor Intrusion Mitigation

Estimated Material and Installation Costs

	Unit	Total Units	Price/unit	Total Cost
Upgraded Floor Waterproofing/Vapor Barrier	square foot	11,000	\$6	\$66,000
Upgraded Wall Waterproofing/Vapor Barrier (300 ft x 36 + 200 ft site x 24)	square foot	15,600	\$6	\$93,600
Estimated Cost for Upgraded Waterproofing/Vapor Barrier				\$159,600
Upgraded Waterproofing/Vapor Barrier Cost with 25% Contingency				\$199,500

6. Voluntary Remediation Program Implementation

Estimated Costs for VRAP or VCP Elements/Tasks

	Unit	Total Units	Price/unit	Total Cost
Principal (Management/Consulting)	hour	40	\$175	\$7,000
Senior Professional (Management/Consulting)	hour	160	\$130	\$20,800
Enrollment Fee / Application	each	1	\$10,000	\$10,000
Reporting Costs (SCR/RAP/RA/DOC)	estimated	1	\$50,000	\$50,000
Post Excavation Laboratory Analyses	estimated	1	\$25,000	\$25,000
Estimated VRP Elements/Tasks Cost				\$112,800
With a 25% Contingency				\$141,000

7. Post Construction Sump Discharge Compliance

One Time Costs (Permit, System Design/Installation)

	Unit	Total Units	Price/unit	Total Cost
DC Water Non-Industrial Discharge Permit	each	1	\$5,000	\$5,000
System Design	each	1	\$25,000	\$25,000
System Installation (assume 100 GPM max flow)	each	1	\$100,000	\$100,000
Estimated One-Time Costs for Permanent Sump Discharge				\$130,000

Permanent Discharge Permit Compliance Costs

	Unit	Total Units	Price/unit	Total Cost
Discharge Monitoring Sample Collection/Analysis/Report	each	2	\$2,500	\$5,000
System O&M (3-year Cycle). Includes Maintenance Visits and System Clean-out every 3 years. Cost presented as a yearly pro-rated cost over the 3-year cycle	year	1	\$15,000	\$15,000
Estimated Yearly Discharge Compliance Cost				\$20,000

Permanent Sump Discharge Compliance Cost for	10 years	\$330,000
Permanent Sump Discharge Compliance Cost for	20 years	\$530,000

8. UST Closures

Tank Closure

	Price/unit
Tank Removal/Permitting/Closure Oversight/Reporting for one (1) 1,000 gallon UST. Additional fees will apply for tanks larger than 1,000 gallons.	\$4,000

Estimated Low Range UST Closure Cost Based on	2 Tanks	\$8,000
Estimated High Range UST Closure Cost Based on	4 Tanks	\$16,000