

ATTACHMENT A: Project Modification Request (PMR) Form

The purpose of this PMR form is to initiate the Project modification process and provide the SCWP with information necessary to evaluate the Project modification request.

Regional Program	☒ Infrastructure Program Project ☐ Scientific Studies Program ☐ Technical Resources Program
Project/Study Name	Skylinks Golf Course at Wardlow Channel Stormwater Capture
Project/Study Lead	City of Long Beach
Watershed Area(s)	Lower San Gabriel River
Current Project Phase	Design
Estimated Completion Date of Funded Activity	Design and CEQA 11/5/2024 - Permitting 3/14/2025
Approved Stormwater Investment Plan Fiscal Year	FY 20-21
Transfer Agreement ID (e.g., 2020RPULAR52)	No. 2020RPLSGR05

Has the Transfer Agreement or most recent Addendum been executed (i.e., signed by the project lead and the District)? ☒ Yes ☐ No

What type(s) of modification request?

- ☐ like-for-like modifications
- ☐ functionally equivalent BMP modifications
- ☐ modifications to Project or Study components that were not material to the WASC, ROC, or Board's decision to include the Project or Study in the SIP
- ☐ reallocation of annual funding projections in the SIP, provided that the total amount of Regional Program funding for the Project or Study remains unchanged
- ☐ change in primary or secondary objective
- ☐ change in Project benefits
- ☐ change in methodology (e.g., infiltration instead of diversion to sanitary sewer)
- ☐ decrease in BMP capacity
- ☐ change in Project or Study location
- ☐ change in capture area where benefits claimed are diminished or where there is a change in the municipalities that are receiving benefits
- ☐ updated engineering analysis resulting in a reduction of benefits
- ☐ increase in community support
- ☐ reduction or withdrawal of community support
- ☐ change in amount or status of leveraged funding
- ☒ any modification resulting in an increase of the total amount of Regional Program funding for the Project or Study
- ☐ any modification resulting in a decrease of the estimated total amount of Regional Program funding for the Project or Study
- ☐ other, please describe:

Impact on scope or benefits?

- | | |
|-------------------------------------|---|
| ☐ Improved | ☒ Neither |
| ☐ Diminished | ☐ Not Sure |

Description of the proposed modification(s), a comparison to the previously approved Project, and the reason(s) why the modification(s) is/are being proposed. Attach additional pages, as needed.

The cost of construction has increased due to inflation. The original construction cost estimate was performed as part of the SCW application in December 2019. There is over 5 years of construction cost increase including the large increase that occurred in 2020 and 2021.

Additionally, through the CEQA process an abandoned water supply well was identified approximately 200 feet east of the project site and just north of Fire Station 19 (3559 Clark Avenue). Although the well is currently inactive and has not been in production since 1986, the current condition of the well casing and sanitary seal are unknown. There is a concern that compromise or deterioration of the well casing and sanitary seal may increase the risk of downward migration of contaminated surface water or shallow groundwater breaching or short-circuiting the well, and contaminating the deeper potable aquifers which feed the other wells in the area. Given the age of the well, it was recommended that the well be decommissioned in accordance with the regulatory agency well decommissioning procedures. An additional construction cost of \$250,000 is required to decommission the well.

The City obtained \$350,000 in funding from one waterboard fine \$175k for 2024 and \$175k for 2025 from AES and is expecting to obtain \$250,000 from the Long Beach Water, and \$1,000,000 from the City of Long Beach Measure W Municipal allocation. The exact amounts will be confirmed with the finalization of City's FY 24/25 budget. The City expects to provide a minimum of 25% match from various sources for the additional fund request.

Currently, the total additional funding needed before construction begins is approximately \$4,533,000. The City is requesting an increase of \$2,933,000 in funding from the Measure W program. The City of Long Beach requests this additional funding to complete the project and allow construction to begin in Spring of 2025

revised funding request:

Note, if some or all of a previously Funded Activity cannot be completed as a result of the proposed modification, please include a description and indicate the amount of unused funds. Any unused funds should be reallocated and accounted for in your revised funding request. Attach additional pages, as needed.

SIP Fiscal Year	Approved Funding Allocations	Increase/ Decrease Requested	Revised Funding Request	Description/Phase/Status <i>If applicable, include description of unused funds</i>
FY20-21	\$1,047,369	-	-	Design & Construction
FY21-22	\$1,638,457	-	-	Design & Construction
FY22-23	\$2,792,983	-	-	Construction
FY23-24	\$2,792,983	-	-	Construction
FY24-25	\$2,175,088	-	-	Construction
FY25-26	-	\$2,933,000	\$2,933,000	Construction
TOTAL	\$10,500,000	\$2,933,000	\$13,433,000	

A: Approved Total Funding Allocations	\$10,500,000
B: Revised Estimate of Total Funding from Regional Program	\$13,433,000
Regional Program Funds Received to date	\$1,047,369
Regional Program Expenditures to date	\$1,561,407
Difference between B and A	\$2,933,000
Percent change between B and A	27.9%

Note: City of Long Beach is providing a \$1,600,000 (35.3%) match for the required additional funding (\$4,533,000) to complete the project.

Would the additional funding request be the only option that would allow the project to be implemented? Please describe.	☒ YES
Yes, the the project was awarded \$10,500,000, and proceeded through design and environmental permitting (CEQA completed with 401, 404, and 1602 Permits expected in March 2025). The project is ready to move forward to construction phase pending the approval of the supplemental funding request as part of the PMR. Due to the large cost inflation and the final design cost estimating updates, the City will require additional funding to complete the project. The increase of approximately \$4.5 million exceeds the City's CIP funding contingency. The City is able to provide \$1,000,000 of additional funding to support the project through additional funding, but this is not enough to cover the funding gap since approval of the project 4 years ago.	
Would delaying funding allocations impact the project's ability to be implemented? Please describe.	☒ YES
Yes. The City can not formally bid the construction contract for the project until it has the funds to cover the project. There is currently a \$4.5 million dollar shortfall after the City's contributions and the use of other funding sources.	
Would funding only a portion of the additional funding request impact the project's ability to be implemented? Please describe.	☒ YES
Yes. The City can not formally bid the construction contract for the project until it has the funds to cover the project. With only a portion of the requested \$4.5 million, the City would still not be able to award the construction contract.	
Has the Recipient considered other funding sources? Please describe. Include type of funding, status, and amount.	☒ YES
Yes. In addition to providing it's own contribution of \$1,000,000, the City also obtained \$250,000 of funding from Long Beach Water for construction support, and a re-allocation of \$350,000 from the Regional Water Board collection of a non-City of Long Beach fines. Additional grant fund from Caltrans was explored, but the tributary drainage does not include any Caltrans eligible property.	

If applicable, a description of difference in SCWP Anticipated Total Funding Request. As a reminder, annual funding is at the discretion of the WASC, ROC, and ultimately the Board of Supervisors. Attach additional pages, as needed.

An additional \$2,933,000 is requested for this project, for a revised total funding request of \$13,433,000. The City will be contributing up to \$1.6 million in supplemental funding through \$350,000 from the Los Angeles Regional Water Board, \$250,000 from the Long Beach Water, and \$1,000,000 from the City of Long Beach Measure W Municipal allocation. Construction on the project cannot begin until additional funding is received.

Brief description of Supporting Documentation provided. Please include any documentation needed to support benefits claimed by the modified Project or Study and confirm compliance with the Feasibility Study Guidelines.

SCW Application Construction Cost estimate of \$8,378,950

100% Construction Cost Estimate of \$12,872,000

Contact information of persons who should be included in correspondence with the SCWP regarding this Project or Study. Attach additional pages, as needed.

Name	Title	Email Address
Tammy Takigawa, PE, QSP/D	City Civil Engineer	tammy.takigawa@longbeach.gov
Aric Torreyson, PE	Tetra Tech PM	Aric.Torreyson@tetrattech.com
Wataru Kumagai	Environmental Specialist	wataru.kumagai@longbeach.gov
Richard Watson	Watershed Consultant	rwatson@rwaplanning.com

I certify the information and supporting documentation provided is accurate and true.	☒ YES
I certify the modified Project complies with all requirements described in the Feasibility Study Guidelines.	☒ YES
I understand this is a request and it is under the WASC's discretion to consider requested modifications.	☒ YES

Name Aric Torreyson

Organization Tetra Tech

Signature



Date 10/10/2024

FOR SCWP STAFF USE ONLY

Proposed Modifications to Projects or Studies:

	Status	Date
Scope/benefits of the modified Project or Study is consistent with the Project or Study included in the current fiscal year's SIP and proposed modifications were approved by the SCWP.	☐ YES	
Scope/benefits of the modified Project or Study requires reapproval in the SIP. If yes, select all that apply:	☒ YES	1/17/2025
Budget/schedule modifications would impact future SIP funding allocations. If yes, select all that apply:	☒ YES	1/17/2025
PMR was received after October 31 of a fiscal year and the PMR will be considered for approval during the preparation of subsequent SIP for the fiscal year after the next	☐ YES	-
Project or Study abandoned the proposed modifications	☐ YES	
Project or Study was withdrawn from consideration by the WASC and shall issue repayment of unspent funds	☐ YES	
Proposed scope/benefit modifications were recommended for approval in the SIP	☐ YES ☐ NO ☐ N/A	
Modifications to the Project or Study's funding allocations were recommended for approval as identified in the SIP	☐ YES ☐ PARTIAL ☐ NO	

Proposed Modifications to Project Concepts:

	Status	Date
Proposed modifications were deemed consistent with the Project concept that was approved by the WASC, ROC and Board for inclusion in the SIP and can be addressed within the existing budget. SCWP staff will proceed to incorporate the proposed modification into the Feasibility Study immediately.	☐ YES	
Proposed modifications were deemed significant enough to result in a significantly different Project concept from the one approved by the WASC, ROC and Board for inclusion in the SIP. If yes, select one:	☐ YES	
SCWP staff to discontinue work on the Feasibility Study, return unused funds to be programmed in the SIP for the next fiscal year, and advise the proponent to submit the modified Project concept during the Call for Projects for a future fiscal year.	☐ YES	-
SCWP staff to abandon the proposed modifications and proceed with the Project concept included in the SIP.	☐ YES	-

SCW Application Cost Estimate Dated 12-19-2019

SKYLINKS GOLF COURSE AT WARDLOW PROJECT PRELIMINARY DESIGN REPORT

ATTACHMENT C: ENGINEER'S 10% COST ESTIMATE

Client: City of Long Beach (Skylinks Golf Course)			Prepared by: MMT	
Project: Skylinks Golf Course Feasibility Study - 6.7 AC-FT			Checked by: OG	
Status: 10% Cost Estimate			Date: 12/11/2019	
Description	Qty	Unit	Unit Price	Total
Miscellaneous				\$433,948
Mobilization / Demobilization (5% of Costs)	1	LS	\$418,948.00	\$418,948
Traffic Control	1	LS	\$15,000.00	\$15,000
Channel Diversion and Pretreatment				\$479,367
Rubber Dam System	1	LS	\$150,000.00	\$150,000
Concrete Pad	1,500	SF	\$10.00	\$15,000
Diversion Structure	1	EA	\$84,000.00	\$84,000
Actuated valve and Structure	2	EA	\$25,000.00	\$50,000
Pretreatment Device (30 CFS)	1	EA	\$125,000.00	\$125,000
Shoring for Pretreatment Device	552	SF	\$10.00	\$5,520
Excavation for Pretreatment Device	61	CY	\$30.00	\$1,840
Backfill and Compaction for Pretreatment Device	27	CY	\$25.00	\$671
hauling for Pretreatment Device	35	CY	\$28.00	\$966
Manhole (4' I.D. x 11.5' Depth)	1	EA	\$7,000.00	\$7,000
Shoring for Manhole	368	SF	\$5.00	\$1,840
Excavation for Manhole	27	CY	\$30.00	\$818
Backfill and Compaction for Manhole	22	CY	\$25.00	\$548
hauling for Manhole	5	CY	\$28.00	\$150
Piping (30 RCP)	55	LF	\$80.00	\$4,400
Excavation for Piping	105	CY	\$8.00	\$843
Shoring for Piping	1,265	SF	\$5.00	\$6,325
Backfill and Compaction for Piping	1,182	CY	\$8.00	\$9,453
Backfill and Compaction for Piping Base (crushed aggregate)	37	CY	\$46.00	\$1,687
hauling for Piping	47	CY	\$28.00	\$1,307
Flap Gate	3	EA	\$4,000.00	\$12,000
Site Preparation and Demolition - Existing Park Area				\$21,070
Concrete Curb and Gutter Removal	20	LF	\$5.00	\$100
Clearing & Grubbing	4,660	SY	\$4.50	\$20,970
Storage				\$4,379,136
Underground Infiltration Gallery Precast Structures	321,037	CF	\$8.50	\$2,728,816
Excavation	35,716	CY	\$15.00	\$535,736
Installation	1	LS	\$100,000.00	\$100,000
Equalization Pipes (36 RCP)	40	LF	\$1,000.00	\$40,000
Aggregate Backfill	451	CY	\$30.00	\$13,542
Subgrade (6" Stone Base with 2' Overhang Around Perimeter)	624	CY	\$40.00	\$24,961
Backfill and Compaction	21,950	CY	\$25.00	\$548,744
hauling	12,691	CY	\$28.00	\$355,336
Maintenance pole	2	EA	\$16,000.00	\$32,000
Wet Well and Conveyance				\$919,717
Wet Well	1	EA	\$20,200.00	\$20,200
Wet Well Installation	1	LS	\$31,000.00	\$31,000
Submersible Pumps and valves	1	LS	\$350,000.00	\$350,000
Excavation for Wet Well	196	CY	\$30.00	\$5,875
Shoring for Wet Well	1,410	SF	\$30.00	\$42,300
Backfill and Compaction for Wet Well	140	CY	\$25.00	\$3,503
hauling for Wet Well	56	CY	\$28.00	\$1,560
18" DIP to Pump Station	30	LF	\$180.00	\$5,400
18" DIP to Box Culvert	90	LF	\$120.00	\$10,800
Excavation for Piping	89	CY	\$10.00	\$889
Backfill and Compaction for Piping	45	CY	\$8.00	\$364
Backfill and Compaction for Piping Base (crushed aggregate)	36	CY	\$46.00	\$1,636
hauling for Piping	8	CY	\$28.00	\$220
Treatment Filter unit	1	EA	\$400,000.00	\$400,000
Actuated valve and Structure	1	EA	\$25,000.00	\$25,000
unction Manhole	1	EA	\$15,000.00	\$15,000
Shoring for unction Manhole	160	SF	\$5.00	\$800
Excavation for unction Manhole	12	CY	\$30.00	\$356
Backfill and Compaction for unction Manhole	7	CY	\$25.00	\$175
hauling for unction Manhole	5	CY	\$28.00	\$140
Flap Gate	1	EA	\$4,500.00	\$4,500

Client: City of Long Beach (Skylinks Golf Course)			Prepared by: MMT	
Project: Skylinks Golf Course Feasibility Study - 6.7 AC-FT			Checked by: OG	
Status: 10% Cost Estimate			Date: 12/11/2019	
Description	Qty	Unit	Unit Price	Total
Electrical Service, Controls, Instrumentation				\$317,000
Electrical Service	1	LS	\$60,000.00	\$60,000
Control Panel and PLC Programming	1	LS	\$90,000.00	\$90,000
Conduit & Wiring	1	LS	\$50,000.00	\$50,000
NEMA 4 Junction Box, 6 x6 x6 (1 each for 480 and 120 conduits)	6	EA	\$2,000.00	\$12,000
Misc. Conduit Fittings, Elbows, Core Drilling and Sealing, etc.	1	LS	\$25,000.00	\$25,000
Instrumentation	1	LS	\$80,000.00	\$80,000
Landscape and Irrigation Modifications				\$296,700
Seeding	41,940	SF	\$0.50	\$20,970
Irrigation	41,940	SF	\$2.00	\$83,880
Shrubs, Perennials, and Grasses	65,340	SF	\$2.50	\$163,350
Tree Planting	15	EA	\$500.00	\$7,500
Sand Volleyball Court	1	EA	\$1,000.00	\$1,000
90-Day Plant Establishment Period	1	LS	\$20,000.00	\$20,000
Site Amenities and Improvements				\$520
Concrete Curb and Gutter	20	LF	\$26.00	\$520
Start-up, Testing, Prepare Operations & Maintenance Manuals, and Prepare Record Drawings				\$135,000
SWPPP Implementation	1	LS	\$75,000.00	\$75,000
Start-up and Testing	1	LS	\$50,000.00	\$50,000
O&M Manuals	1	LS	\$5,000.00	\$5,000
Record Drawings	1	LS	\$5,000.00	\$5,000
SUBTOTAL				\$6,982,458
20% Contingency				\$1,396,492
Total Construction Costs				\$8,378,950
GRAND TOTAL				\$8,378,950

Client: **City of Long Beach (Skylinks Golf Course)**
 Project: **Skylinks Golf Course Feasibility Study - 6.7 AC-FT**
 Status: **10% Cost Estimate**

Prepared by: **MMT**
 Checked by: **OG**
 Date: **12/11/2019**

Description	Qty	Unit	Unit Price	Total
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Assumptions and Exclusions

- 1 This is a rough order of magnitude preliminary opinion of probable construction costs only. Actual costs may vary.
- 2 The unit cost data is derived from inhouse sources, recent bids on similar construction, and RSMeans current construction cost data.
- 3 This opinion of cost is based on the project program and plans made available at the time of preparation.
- 4 Material prices are based on current quotations and do not include escalation.
- 5 This opinion of cost assumes that all improvements will be constructed at one time.
- 6 Quantity take offs were performed when possible and parametric estimates and allowances are used for items that cannot be quantified at this stage of the design.
- 7 This opinion has been based on a competitive open bid situation with a recommended 5 - 7 bonafide reputable bids from general contractors and a minimum of 3 bidders for all items of subcontracted work.
- 8 All unit costs take into account sales tax, general conditions, bonding and insurance, and subcontractor and general contractor overhead and profit.
- 9 Where applicable, unit costs include the cost of freight.

The following are excluded:

- 1 Environmental clearances and permits
- 2 Hazardous spoil disposal, if encountered
- 3 Property and Right of Way acquisition or easements
- 4 Legal and accounting fees
- 5 Plan check, building permit fees
- 6 Utility Connection Fees
- 7 Testing and inspection
- 8 Fire and all risk insurance
- 9 Removal of unforeseen underground obstructions
- 10 Relocation of unforeseen subsurface utilities
- 11 Signage and wayfinding
- 12 Additional fill or import
- 13 Loose furniture and equipment
- 14 Utility connection fees
- 15 Tel/data system
- 16 Construction contingency
- 17 Work done after business hours
- 18 Design, engineering and consulting fees other than those specifically listed in the above estimate

Items that may affect the cost estimate:

- 1 Modifications to the scope of work included in this estimate
- 2 Unforeseen sub-surface conditions
- 3 Restrictive technical specifications or excessive contract conditions
- 4 Any other non-competitive bid situations
- 5 Bids delayed beyond the projected schedule

100% Final Design Cost Estimate Dated 5-19-2024



Client:
Project: CLB Skylinks Phase 2
Status: 100% Design

Prepared by:
Checked by:
Date: 5/19/2024

Description	Unit	Quantity	Unit Price	Item Total
Office & Admin				
Construction Schedule (Baseline)	LS	1	\$ 2,000.00	\$ 2,000
Construction Schedule (Updated)	MT	12	\$ 500.00	\$ 6,000
Construction Schedule (As-Built)	LS	1	\$ 1,000.00	\$ 1,000
Office Facilities	MT	12	\$ 500.00	\$ 6,000
Demolition				
Prepare and Implement SWPPP	LS	1	\$ 65,000.00	\$ 65,000
Clearing and Grubbing	ACRE	2	\$ 10,020.00	\$ 16,032
Prepare and Implement Water Diversion Plan	LS	1	\$ 50,000.00	\$ 50,000
Site Preparation and Demolition	LS	1	\$ 25,000.00	\$ 25,000
Landscaping				
Landscape Estimate	LS	1	\$ 581,579.58	\$ 581,580
1 Year Plant Maintenance and Establishment	LS	1	\$ 35,000.00	\$ 30,000
Electrical				
Electrical Work	LS	1.0	\$ 240,000.00	\$ 240,000
Basic Electrical Methods and Requirements				
Service Switchboard				
Motor Control Centers				
Execution				
Cable				
Low Voltage (600 Volts and Below)				
Conduit Systems				
Boxes and Wiring Devices				
Grounding				
Control Panels and Appurtenances				
Testing				
Demonstrations and Training				
Telemetry				
30-Inch Reinforced Concrete Pipe - Line A	LS	1	\$ 18,450.00	
30 Reinforced Concrete Pipe	LF	82	\$ 225.00	\$ 18,450
Diversion Structure	LS	1	\$ 220,000.00	\$ 220,000
Well Closure	LS	1	\$ 250,000.00	\$ 250,000
Pre-treatment Device	LS	1	\$ 325,000.00	
Pre-treatment Device	LS	1	\$ 325,000.00	\$ 325,000
Additional 30 RCP required for installation				
Pump Station - Line C	LS	1	\$ 715,000.00	
Submersible Pumps	LS	1	\$ 680,000.00	\$ 680,000
Ductile Iron Pipe and Fitting	LS	1		\$ -
Check Valves	EA	1		\$ -
Eccentric Plug Valves	EA			
Rip Rap Protected Inlet	LS	1	\$ 5,000.00	\$ 5,000
Catch Basin	LS	1	\$ 30,000.00	\$ 30,000
Outlet - Line B	LS	1	\$ 49,670.00	
Catch Basin	EAC	1	\$ 32,000.00	\$ 32,000
Check Valves				
18 RCP	LF	93	\$ 190.00	\$ 17,670
Filtration/Water Polisher Unit	LS	1	\$ 275,000.00	
Water Polisher/Filtration Unit	EAC	1	\$ 275,000.00	\$ 275,000
Additional 18 RCP Piping	LF			\$ -
Slide Gates, Motors & Vaults	LS	1	\$ 100,000.00	
30 Cast-Iron Slide Gate Assembly	LS	1	\$ 45,000.00	\$ 45,000
36 Cast-Iron Slide Gate Assembly	LS	1	\$ 55,000.00	\$ 55,000
Electric Motor Operators and Appurtenances				

Vegetative Pond System	LS	1	\$ 236,824.50	
Imperable Liner	SQFT	6252.5	\$ 2.50	\$ 15,631
Filter Fabric	SQFT	6252.5	\$ 2.50	\$ 15,631
egetative Pond Soil	CY	918.6	\$ 45.00	\$ 41,337
Washed 57 AAS TO Stone	SQFT	1918.8	\$ 45.00	\$ 86,346
8" PVC Subdrain System	LS	1	\$ 24,780.00	
8 P C Perforated Pipe	LF	456	\$ 5.00	\$ 2,280
Agridrain Multi-Level Control alve	EA	1	\$ 6,500.00	\$ 6,500
2'x3' Catch Basin	LS	1	\$ 16,000.00	\$ 16,000
36 RCP Equalizer Pipe	LF	42.5	\$ 220.00	\$ 9,350
Backfill	CY	406.5	\$ 12.00	\$ 4,878
Site Grading	CY	2591.4	\$ 15.00	\$ 38,871
Shoring of Open Excavations	LS	1	\$ 900,000.00	\$ 900,000
Driveway	LS	1	\$ 12,000.00	\$ 12,000
Traffic Control	LS	1	\$ 15,000.00	\$ 15,000
12" Reclaimed Water Line Relocation	LS	1	\$ 42,000.00	\$ 42,000
Dewatering	LS	1	\$ 17,000.00	\$ 17,000
Underground Storage Reservoir	new: 2,910,900 per Precon. Not including excavation, base prep, shoring, or ba			
Labor, Materials, Equipment, Supplies, Supervision & Incidental	LS	1		\$ -
Removal of Interfering Existing Improvements	LS	1		\$ -
Control of Water	LS	71		\$ -
Precast Reservoir Units	LS	1	\$ 2,910,900.00	\$ 2,910,900
Design of Precast Concrete Reservoir nits	LS	1		\$ -
Fabricating and All Materials for Plant Precast Concrete Reservoir nits	LS	1		\$ -
Delivery and Storage of Precast Concrete Reservoir nits	LS	1		\$ -
Installation of Precast Concrete Reservoir nits	LS	1	\$ 450,000.00	\$ 450,000
Maintenance Vaults and Vents	LS	1	\$ 180,000.00	\$ 180,000.00
Steps				\$ -
ents				\$ -
Furnishing and Installing of Geotextile Fabric	SQFT	33,285	\$ 2.25	\$ 74,891
Backfilling	CY	7,514	\$ 15.00	\$ 112,710
Excavation	CY	29,456	\$ 11.00	\$ 324,020
Disposal of Excess Excavated and Removed Material	CY	24,127	\$ 5.50	\$ 132,700
Clearing and Striping				\$ -
Fiberglass Stop Logs	EAC	3	\$ 3,100.00	\$ 9,300
Access Manholes	EAC	7	\$ 7,000.00	\$ 49,000
Gravel Backfill	CY	2,661	\$ 5.25	\$ 13,969
Subtotal (1)				\$ 8,367,046
Mobilization/Demobilization and Clean- p - used 10%				\$ 836,705
Permits Allowances - 1% to 3% of Subtotal (1), used 1%				\$ 83,670
Subtotal (2)				\$ 9,287,421
Estimating Contingency - 10% to 20% of Subtotal (2), used 10%				\$ 928,742
Subtotal (3)				\$ 10,216,163
Escalation - 5% per year of Subtotal (3), used compound amount factor: (1+i)^ 2 Years used				\$ 510,808
Subtotal (4)				\$ 10,726,971
Budget Contingency - 10% to 20% of Subtotal (3), used 20%				\$ 2,145,394
Total Estimated Project Cost				\$ 12,872,000