Appendix M

MII COST ESTIMATE

US Army Corps of Engineers

New Orleans District

Houma Navigation Canal
Terrebonne Parish, Louisiana

Cost Engineering Report

August, 2017

TABLE OF CONTENTS

APPENDICES

TOTAL PROJECT COST SUMMARY

Construction

****** TOTAL PROJECT COST SUMMARY ******

PROJECT: **Houma Navigation Canal Deepening Project - Construction**
PROJECT NO: P2 # 443513
LOCATION: Houma, LA

DISTRICT: **New Orleans District** **PREPARED:** **8/24/2017**
POC: **CHIEF, COST ENGINEERING, xxx**

This Estimate reflects the scope and schedule in report; 0

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2018									
						Effective Price Level Date: 1 OCT 17									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	**TOTAL ($K)**	Spent Thru: **3/22/2017** ($K)	**TOTAL FIRST COST** ($K)	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*		*K*	*L*	*M*	*N*	*O*
02	RELOCATIONS	$37,022	$7,775	21.0%	$44,797	0.0%	$37,022	$7,775	$44,797	$0	$44,797	11.0%	$41,083	$8,627	$49,710
09	CHANNELS & CANALS	$103,387	$21,711	21.0%	$125,098	0.0%	$103,387	$21,711	$125,098	$0	$125,098	12.9%	$116,769	$24,521	$141,290
	CONSTRUCTION ESTIMATE TOTALS:	$140,409	$29,486		$169,895	0.0%	$140,409	$29,486	$169,895	$0	$169,895	12.4%	$157,851	$33,149	$191,000
01	LANDS AND DAMAGES	$10,274	$2,569	25.0%	$12,843	0.0%	$10,274	$2,569	$12,843	$0	$12,843	4.1%	$10,694	$2,673	$13,367
30	PLANNING, ENGINEERING & DESIGN	$38,613	$8,109	21.0%	$46,722	0.0%	$38,613	$8,109	$46,722	$0	$46,722	25.0%	$48,283	$10,139	$58,423
31	CONSTRUCTION MANAGEMENT	$20,362	$4,276	21.0%	$24,638	0.0%	$20,362	$4,276	$24,638	$0	$24,638	28.8%	$26,221	$5,506	$31,727
	PROJECT COST TOTALS:	$209,658	$44,439	21.2%	$254,097		$209,658	$44,439	**$254,097**	$0	**$254,097**	15.9%	$243,049	$51,468	$294,518

	CHIEF, COST ENGINEERING, xxx	ESTIMATED FEDERAL COST:	**90%** **$208,300**
	PROJECT MANAGER, xxx	ESTIMATED NON-FEDERAL COST:	**10%** **$86,200**
	CHIEF, REAL ESTATE, xxx	**ESTIMATED TOTAL PROJECT COST:**	**$294,500**
	CHIEF, PLANNING,xxx		
	CHIEF, ENGINEERING, xxx		
	CHIEF, OPERATIONS, xxx		
	CHIEF, CONSTRUCTION, xxx		
	CHIEF, CONTRACTING,xxx		
	CHIEF, PM-PB, xxxx		
	CHIEF, DPM, xxx		

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project - Construction
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-17	Effective Price Level Date:			1 OCT 17					
				RISK BASED										
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	RELOCATIONS CONTRACT 1													
02	RELOCATIONS	$13,268	$2,786	21.0%	$16,054	0.0%	$13,268	$2,786	$16,054	2021Q2	6.7%	$14,157	$2,973	$17,130
	CONSTRUCTION ESTIMATE TOTALS:	$13,268	$2,786	21.0%	**$16,054**		$13,268	$2,786	$16,054			$14,157	$2,973	$17,130
01	LANDS AND DAMAGES	$10,274	$2,569	25.0%	$12,843	0.0%	$10,274	$2,569	$12,843	2020Q1	4.1%	$10,694	$2,673	$13,367
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$332	$70	21.0%	$402	0.0%	$332	$70	$402	2020Q4	11.5%	$370	$78	$448
1.0%	Planning & Environmental Compliance	$133	$28	21.0%	$161	0.0%	$133	$28	$161	2020Q4	11.5%	$148	$31	$179
15.0%	Engineering & Design	$1,990	$418	21.0%	$2,408	0.0%	$1,990	$418	$2,408	2020Q4	11.5%	$2,220	$466	$2,686
1.0%	Reviews, ATRs, IEPRs, VE	$133	$28	21.0%	$161	0.0%	$133	$28	$161	2020Q4	11.5%	$148	$31	$179
1.0%	Life Cycle Updates (cost, schedule, risks)	$133	$28	21.0%	$161	0.0%	$133	$28	$161	2020Q4	11.5%	$148	$31	$179
1.0%	Contracting & Reprographics	$133	$28	21.0%	$161	0.0%	$133	$28	$161	2020Q4	11.5%	$148	$31	$179
3.0%	Engineering During Construction	$398	$84	21.0%	$482	0.0%	$398	$84	$482	2021Q4	16.1%	$462	$97	$559
2.0%	Planning During Construction	$265	$56	21.0%	$321	0.0%	$265	$56	$321	2021Q4	16.1%	$308	$65	$372
1.0%	Project Operations	$133	$28	21.0%	$161	0.0%	$133	$28	$161	2020Q4	11.5%	$148	$31	$179
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$1,327	$279	21.0%	$1,606	0.0%	$1,327	$279	$1,606	2021Q4	16.1%	$1,541	$324	$1,864
2.0%	Project Operation:	$265	$56	21.0%	$321	0.0%	$265	$56	$321	2021Q4	16.1%	$308	$65	$372
2.5%	Project Management	$332	$70	21.0%	$402	0.0%	$332	$70	$402	2021Q4	16.1%	$385	$81	$466
	CONTRACT COST TOTALS:	$29,116	$6,525		$35,641		$29,116	$6,525	$35,641			$31,186	$6,977	$38,163

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project - Construction
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-17	Effective Price Level Date:			1 OCT 17					
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	RELOCATIONS CONTRACT 2													
02	RELOCATIONS	$11,131	$2,338	21.0%	$13,469	0.0%	$11,131	$2,338	$13,469	2023Q3	11.6%	$12,419	$2,608	$15,027
	CONSTRUCTION ESTIMATE TOTALS:	$11,131	$2,338	21.0%	**$13,469**		$11,131	$2,338	$13,469			$12,419	$2,608	$15,027
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$278	$58	21.0%	$336	0.0%	$278	$58	$336	2022Q2	18.4%	$329	$69	$398
1.0%	Planning & Environmental Compliance	$111	$23	21.0%	$134	0.0%	$111	$23	$134	2022Q2	18.4%	$131	$28	$159
15.0%	Engineering & Design	$1,670	$351	21.0%	$2,021	0.0%	$1,670	$351	$2,021	2022Q2	18.4%	$1,978	$415	$2,393
1.0%	Reviews, ATRs, IEPRs, VE	$111	$23	21.0%	$134	0.0%	$111	$23	$134	2022Q2	18.4%	$131	$28	$159
1.0%	Life Cycle Updates (cost, schedule, risks)	$111	$23	21.0%	$134	0.0%	$111	$23	$134	2022Q2	18.4%	$131	$28	$159
1.0%	Contracting & Reprographics	$111	$23	21.0%	$134	0.0%	$111	$23	$134	2022Q2	18.4%	$131	$28	$159
3.0%	Engineering During Construction	$334	$70	21.0%	$404	0.0%	$334	$70	$404	2023Q3	24.6%	$416	$87	$504
2.0%	Planning During Construction	$223	$47	21.0%	$270	0.0%	$223	$47	$270	2023Q3	24.6%	$278	$58	$336
1.0%	Project Operations	$111	$23	21.0%	$134	0.0%	$111	$23	$134	2022Q2	18.4%	$131	$28	$159
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$1,113	$234	21.0%	$1,347	0.0%	$1,113	$234	$1,347	2023Q3	24.6%	$1,387	$291	$1,678
2.0%	Project Operation:	$223	$47	21.0%	$270	0.0%	$223	$47	$270	2023Q3	24.6%	$278	$58	$336
2.5%	Project Management	$278	$58	21.0%	$336	0.0%	$278	$58	$336	2023Q3	24.6%	$346	$73	$419
	CONTRACT COST TOTALS:	$15,805	$3,319		$19,124		$15,805	$3,319	$19,124			$18,088	$3,799	$21,887

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project - Construction
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: / Effective Price Level:			24-Aug-17 / 1-Oct-17	Program Year (Budget EC): / Effective Price Level Date:			2018 / 1 OCT 17					
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	RELOCATIONS CONTRACT 3													
02	RELOCATIONS	$12,623	$2,651	21.0%	$15,274	0.0%	$12,623	$2,651	$15,274	2025Q1	14.9%	$14,507	$3,046	$17,553
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$12,623	$2,651	21.0%	**$15,274**		$12,623	$2,651	$15,274			$14,507	$3,046	$17,553
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$316	$66	21.0%	$382	0.0%	$316	$66	$382	2023Q4	25.9%	$398	$84	$481
1.0%	Planning & Environmental Compliance	$126	$26	21.0%	$152	0.0%	$126	$26	$152	2023Q4	25.9%	$159	$33	$192
15.0%	Engineering & Design	$1,893	$398	21.0%	$2,291	0.0%	$1,893	$398	$2,291	2023Q4	25.9%	$2,383	$500	$2,883
1.0%	Reviews, ATRs, IEPRs, VE	$126	$26	21.0%	$152	0.0%	$126	$26	$152	2023Q4	25.9%	$159	$33	$192
1.0%	Life Cycle Updates (cost, schedule, risks)	$126	$26	21.0%	$152	0.0%	$126	$26	$152	2023Q4	25.9%	$159	$33	$192
1.0%	Contracting & Reprographics	$126	$26	21.0%	$152	0.0%	$126	$26	$152	2023Q4	25.9%	$159	$33	$192
3.0%	Engineering During Construction	$379	$80	21.0%	$459	0.0%	$379	$80	$459	2024Q4	31.2%	$497	$104	$602
2.0%	Planning During Construction	$252	$53	21.0%	$305	0.0%	$252	$53	$305	2024Q4	31.2%	$331	$69	$400
1.0%	Project Operations	$126	$26	21.0%	$152	0.0%	$126	$26	$152	2023Q4	25.9%	$159	$33	$192
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$1,262	$265	21.0%	$1,527	0.0%	$1,262	$265	$1,527	2024Q4	31.2%	$1,656	$348	$2,004
2.0%	Project Operation:	$252	$53	21.0%	$305	0.0%	$252	$53	$305	2024Q4	31.2%	$331	$69	$400
2.5%	Project Management	$316	$66	21.0%	$382	0.0%	$316	$66	$382	2024Q4	31.2%	$415	$87	$502
	CONTRACT COST TOTALS:	$17,923	$3,764		**$21,687**		$17,923	$3,764	$21,687			$21,310	$4,475	**$25,785**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project - Construction
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-17	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	CONSTRUCTION CONTRACT 1													
09	CHANNELS & CANALS	$25,607	$5,377	21.0%	$30,984	0.0%	$25,607	$5,377	$30,984	2022Q4	9.9%	$28,150	$5,911	$34,061
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$25,607	$5,377	21.0%	**$30,984**		$25,607	$5,377	$30,984			$28,150	$5,911	$34,061
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$640	$134	21.0%	$774	0.0%	$640	$134	$774	2022Q2	18.4%	$758	$159	$917
1.0%	Planning & Environmental Compliance	$256	$54	21.0%	$310	0.0%	$256	$54	$310	2022Q2	18.4%	$303	$64	$367
15.0%	Engineering & Design	$3,841	$807	21.0%	$4,648	0.0%	$3,841	$807	$4,648	2022Q2	18.4%	$4,549	$955	$5,505
1.0%	Reviews, ATRs, IEPRs, VE	$256	$54	21.0%	$310	0.0%	$256	$54	$310	2022Q2	18.4%	$303	$64	$367
1.0%	Life Cycle Updates (cost, schedule, risks)	$256	$54	21.0%	$310	0.0%	$256	$54	$310	2022Q2	18.4%	$303	$64	$367
1.0%	Contracting & Reprographics	$256	$54	21.0%	$310	0.0%	$256	$54	$310	2022Q2	18.4%	$303	$64	$367
3.0%	Engineering During Construction	$768	$161	21.0%	$929	0.0%	$768	$161	$929	2023Q2	23.3%	$947	$199	$1,146
2.0%	Planning During Construction	$512	$108	21.0%	$620	0.0%	$512	$108	$620	2023Q2	23.3%	$631	$133	$764
1.0%	Project Operations	$256	$54	21.0%	$310	0.0%	$256	$54	$310	2022Q2	18.4%	$303	$64	$367
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$2,561	$538	21.0%	$3,099	0.0%	$2,561	$538	$3,099	2023Q2	23.3%	$3,158	$663	$3,821
2.0%	Project Operation:	$512	$108	21.0%	$620	0.0%	$512	$108	$620	2023Q2	23.3%	$631	$133	$764
2.5%	Project Management	$640	$134	21.0%	$774	0.0%	$640	$134	$774	2023Q2	23.3%	$789	$166	$955
	CONTRACT COST TOTALS:	$36,361	$7,636		**$43,997**		$36,361	$7,636	$43,997			$41,129	$8,637	**$49,766**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project - Construction
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-17	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	CONSTRUCTION CONTRACT 2													
09	CHANNELS & CANALS	$57,625	$12,101	21.0%	$69,726	0.0%	$57,625	$12,101	$69,726	2024Q1	12.7%	$64,925	$13,634	$78,559
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$57,625	$12,101	21.0%	**$69,726**		$57,625	$12,101	$69,726			$64,925	$13,634	$78,559
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$1,441	$303	21.0%	$1,744	0.0%	$1,441	$303	$1,744	2023Q4	25.9%	$1,814	$381	$2,195
1.0%	Planning & Environmental Compliance	$576	$121	21.0%	$697	0.0%	$576	$121	$697	2023Q4	25.9%	$725	$152	$877
15.0%	Engineering & Design	$8,644	$1,815	21.0%	$10,459	0.0%	$8,644	$1,815	$10,459	2023Q4	25.9%	$10,881	$2,285	$13,167
1.0%	Reviews, ATRs, IEPRs, VE	$576	$121	21.0%	$697	0.0%	$576	$121	$697	2023Q4	25.9%	$725	$152	$877
1.0%	Life Cycle Updates (cost, schedule, risks)	$576	$121	21.0%	$697	0.0%	$576	$121	$697	2023Q4	25.9%	$725	$152	$877
1.0%	Contracting & Reprographics	$576	$121	21.0%	$697	0.0%	$576	$121	$697	2023Q4	25.9%	$725	$152	$877
3.0%	Engineering During Construction	$1,729	$363	21.0%	$2,092	0.0%	$1,729	$363	$2,092	2024Q3	29.9%	$2,245	$471	$2,717
2.0%	Planning During Construction	$1,153	$242	21.0%	$1,395	0.0%	$1,153	$242	$1,395	2024Q3	29.9%	$1,497	$314	$1,812
1.0%	Project Operations	$576	$121	21.0%	$697	0.0%	$576	$121	$697	2023Q4	25.9%	$725	$152	$877
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$5,763	$1,210	21.0%	$6,973	0.0%	$5,763	$1,210	$6,973	2024Q3	29.9%	$7,484	$1,572	$9,055
2.0%	Project Operation:	$1,153	$242	21.0%	$1,395	0.0%	$1,153	$242	$1,395	2024Q3	29.9%	$1,497	$314	$1,812
2.5%	Project Management	$1,441	$303	21.0%	$1,744	0.0%	$1,441	$303	$1,744	2024Q3	29.9%	$1,871	$393	$2,264
	CONTRACT COST TOTALS:	$81,829	$17,184		**$99,013**		$81,829	$17,184	$99,013			$95,840	$20,126	**$115,967**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project - Construction
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: / Effective Price Level:			24-Aug-17 / 1-Oct-17	Program Year (Budget EC): / Effective Price Level Date:			2018 / 1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	CONSTRUCTION CONTRACT 3													
09	CHANNELS & CANALS	$5,881	$1,235	21.0%	$7,116	0.0%	$5,881	$1,235	$7,116	2025Q4	16.7%	$6,861	$1,441	$8,301
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,881	$1,235	21.0%	**$7,116**		$5,881	$1,235	$7,116			$6,861	$1,441	$8,301
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$147	$31	21.0%	$178	0.0%	$147	$31	$178	2025Q2	34.0%	$197	$41	$238
1.0%	Planning & Environmental Compliance	$59	$12	21.0%	$71	0.0%	$59	$12	$71	2025Q2	34.0%	$79	$17	$96
15.0%	Engineering & Design	$882	$185	21.0%	$1,067	0.0%	$882	$185	$1,067	2025Q2	34.0%	$1,182	$248	$1,430
1.0%	Reviews, ATRs, IEPRs, VE	$59	$12	21.0%	$71	0.0%	$59	$12	$71	2025Q2	34.0%	$79	$17	$96
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$12	21.0%	$71	0.0%	$59	$12	$71	2025Q2	34.0%	$79	$17	$96
1.0%	Contracting & Reprographics	$59	$12	21.0%	$71	0.0%	$59	$12	$71	2025Q2	34.0%	$79	$17	$96
3.0%	Engineering During Construction	$176	$37	21.0%	$213	0.0%	$176	$37	$213	2026Q1	38.3%	$243	$51	$295
2.0%	Planning During Construction	$118	$25	21.0%	$143	0.0%	$118	$25	$143	2026Q1	38.3%	$163	$34	$197
1.0%	Project Operations	$59	$12	21.0%	$71	0.0%	$59	$12	$71	2025Q2	34.0%	$79	$17	$96
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$588	$123	21.0%	$711	0.0%	$588	$123	$711	2026Q1	38.3%	$813	$171	$984
2.0%	Project Operation:	$118	$25	21.0%	$143	0.0%	$118	$25	$143	2026Q1	38.3%	$163	$34	$197
2.5%	Project Management	$147	$31	21.0%	$178	0.0%	$147	$31	$178	2026Q1	38.3%	$203	$43	$246
	CONTRACT COST TOTALS:	$8,352	$1,754		**$10,106**		$8,352	$1,754	$10,106			$10,221	$2,146	**$12,368**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project - Construction
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-17	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	CONSTRUCTION CONTRACT 4													
09	CHANNELS & CANALS	$5,676	$1,192	21.0%	$6,868	0.0%	$5,676	$1,192	$6,868	2026Q1	17.2%	$6,653	$1,397	$8,051
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,676	$1,192	21.0%	**$6,868**		$5,676	$1,192	$6,868			$6,653	$1,397	$8,051
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$142	$30	21.0%	$172	0.0%	$142	$30	$172	2025Q4	36.9%	$194	$41	$235
1.0%	Planning & Environmental Compliance	$57	$12	21.0%	$69	0.0%	$57	$12	$69	2025Q4	36.9%	$78	$16	$94
15.0%	Engineering & Design	$851	$179	21.0%	$1,030	0.0%	$851	$179	$1,030	2025Q4	36.9%	$1,165	$245	$1,409
1.0%	Reviews, ATRs, IEPRs, VE	$57	$12	21.0%	$69	0.0%	$57	$12	$69	2025Q4	36.9%	$78	$16	$94
1.0%	Life Cycle Updates (cost, schedule, risks)	$57	$12	21.0%	$69	0.0%	$57	$12	$69	2025Q4	36.9%	$78	$16	$94
1.0%	Contracting & Reprographics	$57	$12	21.0%	$69	0.0%	$57	$12	$69	2025Q4	36.9%	$78	$16	$94
3.0%	Engineering During Construction	$170	$36	21.0%	$206	0.0%	$170	$36	$206	2026Q3	41.3%	$240	$50	$291
2.0%	Planning During Construction	$114	$24	21.0%	$138	0.0%	$114	$24	$138	2026Q3	41.3%	$161	$34	$195
1.0%	Project Operations	$57	$12	21.0%	$69	0.0%	$57	$12	$69	2025Q4	36.9%	$78	$16	$94
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$568	$119	21.0%	$687	0.0%	$568	$119	$687	2026Q3	41.3%	$803	$169	$971
2.0%	Project Operation:	$114	$24	21.0%	$138	0.0%	$114	$24	$138	2026Q3	41.3%	$161	$34	$195
2.5%	Project Management	$142	$30	21.0%	$172	0.0%	$142	$30	$172	2026Q3	41.3%	$201	$42	$243
	CONTRACT COST TOTALS:	$8,062	$1,693		**$9,755**		$8,062	$1,693	$9,755			$9,968	$2,093	**$12,062**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project - Construction
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-17	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	CONSTRUCTION CONTRACT 5													
09	CHANNELS & CANALS	$8,598	$1,806	21.0%	$ 10,404	0.0%	$8,598	$1,806	$10,404	2026Q3	18.4%	$10,180	$2,138	$12,318
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$8,598	$1,806	21.0%	**10,404**		$8,598	$1,806	$10,404			$10,180	$2,138	$12,318
01	LANDS AND DAMAGES	$0	$0	0.0%	$ -	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$215	$45	21.0%	260	0.0%	$215	$45	$260	2026Q2	39.8%	$300	$63	$364
1.0%	Planning & Environmental Compliance	$86	$18	21.0%	104	0.0%	$86	$18	$104	2026Q2	39.8%	$120	$25	$145
15.0%	Engineering & Design	$1,290	$271	21.0%	1,561	0.0%	$1,290	$271	$1,561	2026Q2	39.8%	$1,803	$379	$2,182
1.0%	Reviews, ATRs, IEPRs, VE	$86	$18	21.0%	104	0.0%	$86	$18	$104	2026Q2	39.8%	$120	$25	$145
1.0%	Life Cycle Updates (cost, schedule, risks)	$86	$18	21.0%	$104	0.0%	$86	$18	$104	2026Q2	39.8%	$120	$25	$145
1.0%	Contracting & Reprographics	$86	$18	21.0%	104	0.0%	$86	$18	$104	2026Q2	39.8%	$120	$25	$145
3.0%	Engineering During Construction	$258	$54	21.0%	312	0.0%	$258	$54	$312	2027Q1	44.4%	$372	$78	$451
2.0%	Planning During Construction	$172	$36	21.0%	208	0.0%	$172	$36	$208	2027Q1	44.4%	$248	$52	$300
1.0%	Project Operations	$86	$18	21.0%	104	0.0%	$86	$18	$104	2026Q2	39.8%	$120	$25	$145
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$860	$181	21.0%	1,041	0.0%	$860	$181	$1,041	2027Q1	44.4%	$1,242	$261	$1,502
2.0%	Project Operation:	$172	$36	21.0%	208	0.0%	$172	$36	$208	2027Q1	44.4%	$248	$52	$300
2.5%	Project Management	$215	$45	21.0%	260	0.0%	$215	$45	$260	2027Q1	44.4%	$310	$65	$376
	CONTRACT COST TOTALS:	$12,210	$2,564		**14,774**		$12,210	$2,564	$14,774			$15,306	$3,214	**$18,520**

TOTAL PROJECT COST SUMMARY

Operation and Maintenance

****** TOTAL PROJECT COST SUMMARY ******

PROJECT: **Houma Navigation Canal Deepening Project**
PROJECT NO: P2 # 443513
LOCATION: Houma, LA

DISTRICT: **New Orleans District**
POC: **CHIEF, COST ENGINEERING, xxx**

PREPARED: **8/24/2017**

This Estimate reflects the scope and schedule in report; 0

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2018 Effective Price Level Date: 1 OCT 17									
WBS NUMBER *A*	Civil Works Feature & Sub-Feature Description *B*	COST ($K) *C*	CNTG ($K) *D*	CNTG (%) *E*	TOTAL ($K) *F*	ESC (%) *G*	COST ($K) *H*	CNTG ($K) *I*	**TOTAL ($K)** *J*	Spent Thru: **3/22/2017** ($K)	**TOTAL FIRST COST** ($K) *K*	INFLATED (%) *L*	COST ($K) *M*	CNTG ($K) *N*	FULL ($K) *O*
09	CHANNELS & CANALS	$450,269	$99,059	22.0%	$549,328	1.9%	$458,627	$100,898	$559,525	$0	$559,525	109.2%	$959,269	$211,039	$1,170,308
	CONSTRUCTION ESTIMATE TOTALS:	$450,269	$99,059		$549,328	1.9%	$458,627	$100,898	$559,525	$0	$559,525	109.2%	$959,269	$211,039	$1,170,308
01	LANDS AND DAMAGES									$0	$0				
30	PLANNING, ENGINEERING & DESIGN	$123,763	$27,228	22.0%	$150,991	3.1%	$127,600	$28,072	$155,672	$0	$155,672	561.9%	$844,534	$185,798	$1,030,332
31	CONSTRUCTION MANAGEMENT	$65,293	$14,364	22.0%	$79,657	3.1%	$67,317	$14,810	$82,127	$0	$82,127	587.7%	$462,907	$101,839	$564,746
	PROJECT COST TOTALS:	$639,325	$140,652	22.0%	$779,977		$653,544	$143,780	**$797,323**	$0	**$797,323**	246.8%	$2,266,710	$498,676	$2,765,386

CHIEF, COST ENGINEERING, xxx	ESTIMATED FEDERAL COST:	**100%**	**$2,765,400**
PROJECT MANAGER, xxx	ESTIMATED NON-FEDERAL COST:	**0%**	**$0**
CHIEF, REAL ESTATE, xxx	**ESTIMATED TOTAL PROJECT COST:**		**$2,765,400**
CHIEF, PLANNING,xxx			
CHIEF, ENGINEERING, xxx			
CHIEF, OPERATIONS, xxx			
CHIEF, CONSTRUCTION, xxx			
CHIEF, CONTRACTING,xxx			
CHIEF, PM-PB, xxxx			
CHIEF, DPM, xxx			

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 1													
09	CHANNELS & CANALS	$8,180	$1,800	22.0%	$9,980	1.9%	$8,332	$1,833	$10,165	2028Q3	23.2%	$10,263	$2,258	$12,521
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$8,180	$1,800	22.0%	**$9,980**		$8,332	$1,833	$10,165			$10,263	$2,258	$12,521
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$205	$45	22.0%	$250	3.1%	$211	$46	$258	2028Q2	52.5%	$322	$71	$393
1.0%	Planning & Environmental Compliance	$82	$18	22.0%	$100	3.1%	$85	$19	$103	2028Q2	52.5%	$129	$28	$157
15.0%	Engineering & Design	$1,227	$270	22.0%	$1,497	3.1%	$1,265	$278	$1,543	2028Q2	52.5%	$1,929	$424	$2,353
1.0%	Reviews, ATRs, IEPRs, VE	$82	$18	22.0%	$100	3.1%	$85	$19	$103	2028Q2	52.5%	$129	$28	$157
1.0%	Life Cycle Updates (cost, schedule, risks)	$82	$18	22.0%	$100	3.1%	$85	$19	$103	2028Q2	52.5%	$129	$28	$157
1.0%	Contracting & Reprographics	$82	$18	22.0%	$100	3.1%	$85	$19	$103	2028Q2	52.5%	$129	$28	$157
3.0%	Engineering During Construction	$245	$54	22.0%	$299	3.1%	$253	$56	$308	2029Q1	57.6%	$398	$88	$486
2.0%	Planning During Construction	$164	$36	22.0%	$200	3.1%	$169	$37	$206	2029Q1	57.6%	$267	$59	$325
1.0%	Project Operations	$82	$18	22.0%	$100	3.1%	$85	$19	$103	2028Q2	52.5%	$129	$28	$157
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$818	$180	22.0%	$998	3.1%	$843	$186	$1,029	2029Q1	57.6%	$1,329	$292	$1,622
2.0%	Project Operation:	$164	$36	22.0%	$200	3.1%	$169	$37	$206	2029Q1	57.6%	$267	$59	$325
2.5%	Project Management	$205	$45	22.0%	$250	3.1%	$211	$46	$258	2029Q1	57.6%	$333	$73	$406
	CONTRACT COST TOTALS:	$11,618	$2,556		**$14,174**		$11,876	$2,613	$14,489			$15,753	$3,466	**$19,218**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 2													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2029Q3	25.6%	$7,603	$1,673	$9,276
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$7,603	$1,673	$9,276
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2029Q2	59.3%	$245	$54	$299
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2029Q2	59.3%	$97	$21	$118
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2029Q2	59.3%	$1,464	$322	$1,786
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2029Q2	59.3%	$97	$21	$118
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2029Q2	59.3%	$97	$21	$118
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2029Q2	59.3%	$97	$21	$118
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2029Q4	63.0%	$299	$66	$365
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2029Q4	63.0%	$200	$44	$244
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2029Q2	59.3%	$97	$21	$118
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2029Q4	63.0%	$998	$220	$1,218
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2029Q4	63.0%	$200	$44	$244
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2029Q4	63.0%	$250	$55	$305
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$11,744	$2,584	**$14,328**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 3													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2030Q1	26.9%	$6,894	$1,517	$8,410
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$6,894	$1,517	$8,410
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2029Q4	63.0%	$224	$49	$273
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2029Q4	63.0%	$89	$20	$109
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2029Q4	63.0%	$1,344	$296	$1,640
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2029Q4	63.0%	$89	$20	$109
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2029Q4	63.0%	$89	$20	$109
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2029Q4	63.0%	$89	$20	$109
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2030Q3	68.6%	$278	$61	$339
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2030Q3	68.6%	$186	$41	$227
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2029Q4	63.0%	$89	$20	$109
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2030Q3	68.6%	$927	$204	$1,130
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2030Q3	68.6%	$186	$41	$227
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2030Q3	68.6%	$231	$51	$282
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$10,715	$2,357	**$13,072**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 4													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2031Q3	30.7%	$7,911	$1,740	$9,651
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$7,911	$1,740	$9,651
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2031Q2	74.5%	$268	$59	$327
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2031Q2	74.5%	$106	$23	$129
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2031Q2	74.5%	$1,603	$353	$1,956
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2031Q2	74.5%	$106	$23	$129
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2031Q2	74.5%	$106	$23	$129
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2031Q2	74.5%	$106	$23	$129
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2032Q2	82.7%	$335	$74	$409
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2032Q2	82.7%	$224	$49	$273
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2031Q2	74.5%	$106	$23	$129
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2032Q2	82.7%	$1,119	$246	$1,365
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2032Q2	82.7%	$224	$49	$273
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2032Q2	82.7%	$281	$62	$342
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$12,495	$2,749	**$15,244**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 5													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2032Q2	32.7%	$7,208	$1,586	$8,794
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$7,208	$1,586	$8,794
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2032Q2	82.7%	$251	$55	$306
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2032Q2	82.7%	$100	$22	$122
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2032Q2	82.7%	$1,507	$332	$1,838
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2032Q2	82.7%	$100	$22	$122
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2032Q2	82.7%	$100	$22	$122
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2032Q2	82.7%	$100	$22	$122
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2032Q4	87.1%	$309	$68	$377
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2032Q4	87.1%	$206	$45	$252
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2032Q2	82.7%	$100	$22	$122
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2032Q4	87.1%	$1,028	$226	$1,254
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2032Q4	87.1%	$206	$45	$252
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2032Q4	87.1%	$257	$56	$313
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$11,471	$2,524	**$13,994**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 6													
09	CHANNELS & CANALS	$22,203	$4,885	22.0%	$27,088	1.9%	$22,615	$4,975	$27,590	2033Q2	35.3%	$30,605	$6,733	$37,338
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$22,203	$4,885	22.0%	**$27,088**		$22,615	$4,975	$27,590			$30,605	$6,733	$37,338
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$555	$122	22.0%	$677	3.1%	$572	$126	$698	2032Q2	82.7%	$1,045	$230	$1,275
1.0%	Planning & Environmental Compliance	$222	$49	22.0%	$271	3.1%	$229	$50	$279	2032Q2	82.7%	$418	$92	$510
15.0%	Engineering & Design	$3,330	$733	22.0%	$4,063	3.1%	$3,433	$755	$4,189	2032Q2	82.7%	$6,273	$1,380	$7,653
1.0%	Reviews, ATRs, IEPRs, VE	$222	$49	22.0%	$271	3.1%	$229	$50	$279	2032Q2	82.7%	$418	$92	$510
1.0%	Life Cycle Updates (cost, schedule, risks)	$222	$49	22.0%	$271	3.1%	$229	$50	$279	2032Q2	82.7%	$418	$92	$510
1.0%	Contracting & Reprographics	$222	$49	22.0%	$271	3.1%	$229	$50	$279	2032Q2	82.7%	$418	$92	$510
3.0%	Engineering During Construction	$666	$147	22.0%	$813	3.1%	$687	$151	$838	2033Q4	96.2%	$1,347	$296	$1,643
2.0%	Planning During Construction	$444	$98	22.0%	$542	3.1%	$458	$101	$558	2033Q4	96.2%	$898	$198	$1,096
1.0%	Project Operations	$222	$49	22.0%	$271	3.1%	$229	$50	$279	2032Q2	82.7%	$418	$92	$510
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$2,220	$488	22.0%	$2,708	3.1%	$2,289	$504	$2,792	2033Q4	96.2%	$4,490	$988	$5,478
2.0%	Project Operation:	$444	$98	22.0%	$542	3.1%	$458	$101	$558	2033Q4	96.2%	$898	$198	$1,096
2.5%	Project Management	$555	$122	22.0%	$677	3.1%	$572	$126	$698	2033Q4	96.2%	$1,122	$247	$1,369
	CONTRACT COST TOTALS:	$31,527	$6,936		**$38,463**		$32,228	$7,090	$39,318			$48,768	$10,729	**$59,498**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 7													
09	CHANNELS & CANALS	$18,978	$4,175	22.0%	$23,153	1.9%	$19,330	$4,253	$23,583	2034Q4	39.4%	$26,950	$5,929	$32,879
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$18,978	$4,175	22.0%	**$23,153**		$19,330	$4,253	$23,583			$26,950	$5,929	$32,879
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$474	$104	22.0%	$578	3.1%	$489	$108	$596	2034Q2	100.9%	$982	$216	$1,198
1.0%	Planning & Environmental Compliance	$190	$42	22.0%	$232	3.1%	$196	$43	$239	2034Q2	100.9%	$393	$87	$480
15.0%	Engineering & Design	$2,847	$626	22.0%	$3,473	3.1%	$2,935	$646	$3,581	2034Q2	100.9%	$5,896	$1,297	$7,193
1.0%	Reviews, ATRs, IEPRs, VE	$190	$42	22.0%	$232	3.1%	$196	$43	$239	2034Q2	100.9%	$393	$87	$480
1.0%	Life Cycle Updates (cost, schedule, risks)	$190	$42	22.0%	$232	3.1%	$196	$43	$239	2034Q2	100.9%	$393	$87	$480
1.0%	Contracting & Reprographics	$190	$42	22.0%	$232	3.1%	$196	$43	$239	2034Q2	100.9%	$393	$87	$480
3.0%	Engineering During Construction	$569	$125	22.0%	$694	3.1%	$587	$129	$716	2035Q1	108.4%	$1,222	$269	$1,491
2.0%	Planning During Construction	$380	$84	22.0%	$464	3.1%	$392	$86	$478	2035Q1	108.4%	$816	$180	$996
1.0%	Project Operations	$190	$42	22.0%	$232	3.1%	$196	$43	$239	2034Q2	100.9%	$393	$87	$480
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$1,898	$418	22.0%	$2,316	3.1%	$1,957	$431	$2,387	2035Q1	108.4%	$4,078	$897	$4,975
2.0%	Project Operation:	$380	$84	22.0%	$464	3.1%	$392	$86	$478	2035Q1	108.4%	$816	$180	$996
2.5%	Project Management	$474	$104	22.0%	$578	3.1%	$489	$108	$596	2035Q1	108.4%	$1,018	$224	$1,242
	CONTRACT COST TOTALS:	$26,950	$5,929		**$32,879**		$27,549	$6,061	$33,610			$43,746	$9,624	**$53,370**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 8													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2035Q3	41.5%	$8,563	$1,884	$10,446
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$8,563	$1,884	$10,446
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2035Q2	110.9%	$324	$71	$395
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2035Q2	110.9%	$128	$28	$157
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2035Q2	110.9%	$1,937	$426	$2,364
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2035Q2	110.9%	$128	$28	$157
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2035Q2	110.9%	$128	$28	$157
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2035Q2	110.9%	$128	$28	$157
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2036Q1	118.8%	$402	$88	$490
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2036Q1	118.8%	$268	$59	$328
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2035Q2	110.9%	$128	$28	$157
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2036Q1	118.8%	$1,340	$295	$1,635
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2036Q1	118.8%	$268	$59	$328
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2036Q1	118.8%	$336	$74	$410
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$14,080	$3,098	**$17,177**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 9													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2036Q2	43.6%	$7,802	$1,717	$9,519
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$7,802	$1,717	$9,519
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2036Q1	118.8%	$300	$66	$366
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2036Q1	118.8%	$120	$26	$146
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2036Q1	118.8%	$1,805	$397	$2,202
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2036Q1	118.8%	$120	$26	$146
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2036Q1	118.8%	$120	$26	$146
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2036Q1	118.8%	$120	$26	$146
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2036Q4	127.1%	$375	$82	$457
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2036Q4	127.1%	$251	$55	$306
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2036Q1	118.8%	$120	$26	$146
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2036Q4	127.1%	$1,248	$275	$1,522
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2036Q4	127.1%	$251	$55	$306
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2036Q4	127.1%	$311	$69	$380
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$12,940	$2,847	**$15,787**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 10													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2036Q4	45.0%	$8,777	$1,931	$10,708
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$8,777	$1,931	$10,708
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2036Q3	124.3%	$345	$76	$420
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2036Q3	124.3%	$136	$30	$166
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2036Q3	124.3%	$2,060	$453	$2,513
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2036Q3	124.3%	$136	$30	$166
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2036Q3	124.3%	$136	$30	$166
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2036Q3	124.3%	$136	$30	$166
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2037Q2	132.7%	$427	$94	$521
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2037Q2	132.7%	$286	$63	$348
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2036Q3	124.3%	$136	$30	$166
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2037Q2	132.7%	$1,425	$314	$1,739
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2037Q2	132.7%	$286	$63	$348
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2037Q2	132.7%	$358	$79	$436
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$14,645	$3,222	**$17,867**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 11													
09	CHANNELS & CANALS	$8,089	$1,780	22.0%	$9,869	1.9%	$8,239	$1,813	$10,052	2038Q3	50.2%	$12,372	$2,722	$15,094
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$8,089	$1,780	22.0%	**$9,869**		$8,239	$1,813	$10,052			$12,372	$2,722	$15,094
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$202	$44	22.0%	$246	3.1%	$208	$46	$254	2038Q2	144.8%	$510	$112	$622
1.0%	Planning & Environmental Compliance	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2038Q2	144.8%	$204	$45	$249
15.0%	Engineering & Design	$1,213	$267	22.0%	$1,480	3.1%	$1,251	$275	$1,526	2038Q2	144.8%	$3,062	$674	$3,736
1.0%	Reviews, ATRs, IEPRs, VE	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2038Q2	144.8%	$204	$45	$249
1.0%	Life Cycle Updates (cost, schedule, risks)	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2038Q2	144.8%	$204	$45	$249
1.0%	Contracting & Reprographics	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2038Q2	144.8%	$204	$45	$249
3.0%	Engineering During Construction	$243	$53	22.0%	$296	3.1%	$251	$55	$306	2039Q1	154.4%	$637	$140	$778
2.0%	Planning During Construction	$162	$36	22.0%	$198	3.1%	$167	$37	$204	2039Q1	154.4%	$425	$93	$518
1.0%	Project Operations	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2038Q2	144.8%	$204	$45	$249
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$809	$178	22.0%	$987	3.1%	$834	$183	$1,018	2039Q1	154.4%	$2,122	$467	$2,589
2.0%	Project Operation:	$162	$36	22.0%	$198	3.1%	$167	$37	$204	2039Q1	154.4%	$425	$93	$518
2.5%	Project Management	$202	$44	22.0%	$246	3.1%	$208	$46	$254	2039Q1	154.4%	$530	$117	$646
	CONTRACT COST TOTALS:	$11,487	$2,527		**$14,014**		$11,742	$2,583	$14,326			$21,105	$4,643	**$25,748**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)					
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018						
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE					
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)	
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*	
	O&M CONTRACT 12														
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2039Q3	53.2%	$9,268	$2,039		$11,307
							$0								
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$9,268	$2,039		$11,307
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0		$0
30	PLANNING, ENGINEERING & DESIGN														
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2039Q2	157.6%	$396	$87		$483
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2039Q2	157.6%	$157	$34		$191
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2039Q2	157.6%	$2,366	$521		$2,887
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2039Q2	157.6%	$157	$34		$191
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2039Q2	157.6%	$157	$34		$191
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2039Q2	157.6%	$157	$34		$191
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2039Q4	164.3%	$485	$107		$592
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2039Q4	164.3%	$324	$71		$396
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2039Q2	157.6%	$157	$34		$191
31	CONSTRUCTION MANAGEMENT														
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2039Q4	164.3%	$1,618	$356		$1,974
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2039Q4	164.3%	$324	$71		$396
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2039Q4	164.3%	$406	$89		$495
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$15,971	$3,514		**$19,485**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 13													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2040Q1	54.7%	$8,403	$1,849	$10,252
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$8,403	$1,849	$10,252
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2039Q4	164.3%	$362	$80	$442
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2039Q4	164.3%	$144	$32	$176
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2039Q4	164.3%	$2,180	$480	$2,659
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2039Q4	164.3%	$144	$32	$176
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2039Q4	164.3%	$144	$32	$176
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2039Q4	164.3%	$144	$32	$176
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2040Q3	174.5%	$453	$100	$552
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2040Q3	174.5%	$303	$67	$369
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2039Q4	164.3%	$144	$32	$176
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2040Q3	174.5%	$1,508	$332	$1,840
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2040Q3	174.5%	$303	$67	$369
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2040Q3	174.5%	$376	$83	$459
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$14,610	$3,214	**$17,825**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 14													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2041Q3	59.4%	$9,643	$2,121	$11,764
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$9,643	$2,121	$11,764
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2041Q2	185.1%	$438	$96	$534
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2041Q2	185.1%	$173	$38	$212
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2041Q2	185.1%	$2,619	$576	$3,195
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2041Q2	185.1%	$173	$38	$212
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2041Q2	185.1%	$173	$38	$212
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2041Q2	185.1%	$173	$38	$212
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2042Q2	199.9%	$550	$121	$671
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2042Q2	199.9%	$368	$81	$449
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2041Q2	185.1%	$173	$38	$212
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2042Q2	199.9%	$1,836	$404	$2,240
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2042Q2	199.9%	$368	$81	$449
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2042Q2	199.9%	$461	$101	$562
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$17,150	$3,773	**$20,922**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 15													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2042Q2	61.7%	$8,787	$1,933	$10,720
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$8,787	$1,933	$10,720
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2042Q2	199.9%	$411	$90	$502
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2042Q2	199.9%	$164	$36	$200
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2042Q2	199.9%	$2,473	$544	$3,018
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2042Q2	199.9%	$164	$36	$200
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2042Q2	199.9%	$164	$36	$200
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2042Q2	199.9%	$164	$36	$200
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2042Q4	207.7%	$508	$112	$619
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2042Q4	207.7%	$339	$75	$414
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2042Q2	199.9%	$164	$36	$200
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2042Q4	207.7%	$1,691	$372	$2,063
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2042Q4	207.7%	$339	$75	$414
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2042Q4	207.7%	$422	$93	$515
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$15,790	$3,474	**$19,263**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 16													
09	CHANNELS & CANALS	$22,109	$4,864	22.0%	$26,973	1.9%	$22,519	$4,954	$27,474	2043Q2	65.0%	$37,149	$8,173	$45,321
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$22,109	$4,864	22.0%	**$26,973**		$22,519	$4,954	$27,474			$37,149	$8,173	$45,321
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$553	$122	22.0%	$675	3.1%	$570	$125	$696	2042Q2	199.9%	$1,710	$376	$2,086
1.0%	Planning & Environmental Compliance	$221	$49	22.0%	$270	3.1%	$228	$50	$278	2042Q2	199.9%	$683	$150	$834
15.0%	Engineering & Design	$3,316	$730	22.0%	$4,046	3.1%	$3,419	$752	$4,171	2042Q2	199.9%	$10,252	$2,255	$12,508
1.0%	Reviews, ATRs, IEPRs, VE	$221	$49	22.0%	$270	3.1%	$228	$50	$278	2042Q2	199.9%	$683	$150	$834
1.0%	Life Cycle Updates (cost, schedule, risks)	$221	$49	22.0%	$270	3.1%	$228	$50	$278	2042Q2	199.9%	$683	$150	$834
1.0%	Contracting & Reprographics	$221	$49	22.0%	$270	3.1%	$228	$50	$278	2042Q2	199.9%	$683	$150	$834
3.0%	Engineering During Construction	$663	$146	22.0%	$809	3.1%	$684	$150	$834	2043Q4	223.7%	$2,212	$487	$2,699
2.0%	Planning During Construction	$442	$97	22.0%	$539	3.1%	$456	$100	$556	2043Q4	223.7%	$1,475	$324	$1,799
1.0%	Project Operations	$221	$49	22.0%	$270	3.1%	$228	$50	$278	2042Q2	199.9%	$683	$150	$834
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$2,211	$486	22.0%	$2,697	3.1%	$2,280	$501	$2,781	2043Q4	223.7%	$7,378	$1,623	$9,001
2.0%	Project Operation:	$442	$97	22.0%	$539	3.1%	$456	$100	$556	2043Q4	223.7%	$1,475	$324	$1,799
2.5%	Project Management	$553	$122	22.0%	$675	3.1%	$570	$125	$696	2043Q4	223.7%	$1,845	$406	$2,251
	CONTRACT COST TOTALS:	$31,394	$6,907		**$38,301**		$32,092	$7,060	$39,153			$66,913	$14,721	**$81,633**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 17													
09	CHANNELS & CANALS	$18,894	$4,157	22.0%	$23,051	1.9%	$19,245	$4,234	$23,479	2044Q4	69.9%	$32,706	$7,195	$39,902
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$18,894	$4,157	22.0%	**$23,051**		$19,245	$4,234	$23,479			$32,706	$7,195	$39,902
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$472	$104	22.0%	$576	3.1%	$487	$107	$594	2044Q2	231.9%	$1,615	$355	$1,970
1.0%	Planning & Environmental Compliance	$189	$42	22.0%	$231	3.1%	$195	$43	$238	2044Q2	231.9%	$647	$142	$789
15.0%	Engineering & Design	$2,834	$623	22.0%	$3,457	3.1%	$2,922	$643	$3,565	2044Q2	231.9%	$9,697	$2,133	$11,830
1.0%	Reviews, ATRs, IEPRs, VE	$189	$42	22.0%	$231	3.1%	$195	$43	$238	2044Q2	231.9%	$647	$142	$789
1.0%	Life Cycle Updates (cost, schedule, risks)	$189	$42	22.0%	$231	3.1%	$195	$43	$238	2044Q2	231.9%	$647	$142	$789
1.0%	Contracting & Reprographics	$189	$42	22.0%	$231	3.1%	$195	$43	$238	2044Q2	231.9%	$647	$142	$789
3.0%	Engineering During Construction	$567	$125	22.0%	$692	3.1%	$585	$129	$713	2045Q1	244.8%	$2,016	$443	$2,459
2.0%	Planning During Construction	$378	$83	22.0%	$461	3.1%	$390	$86	$475	2045Q1	244.8%	$1,344	$296	$1,639
1.0%	Project Operations	$189	$42	22.0%	$231	3.1%	$195	$43	$238	2044Q2	231.9%	$647	$142	$789
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$1,889	$416	22.0%	$2,305	3.1%	$1,948	$428	$2,376	2045Q1	244.8%	$6,715	$1,477	$8,193
2.0%	Project Operation:	$378	$83	22.0%	$461	3.1%	$390	$86	$475	2045Q1	244.8%	$1,344	$296	$1,639
2.5%	Project Management	$472	$104	22.0%	$576	3.1%	$487	$107	$594	2045Q1	244.8%	$1,678	$369	$2,047
	CONTRACT COST TOTALS:	$26,829	$5,902		**$32,731**		$27,426	$6,034	$33,459			$60,348	$13,277	**$73,625**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 18													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2045Q3	72.5%	$10,438	$2,296	$12,734
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$10,438	$2,296	$12,734
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2045Q2	249.1%	$536	$118	$654
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2045Q2	249.1%	$212	$47	$259
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2045Q2	249.1%	$3,207	$706	$3,913
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2045Q2	249.1%	$212	$47	$259
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2045Q2	249.1%	$212	$47	$259
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2045Q2	249.1%	$212	$47	$259
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2046Q1	262.7%	$666	$146	$812
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2046Q1	262.7%	$445	$98	$543
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2045Q2	249.1%	$212	$47	$259
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2046Q1	262.7%	$2,222	$489	$2,710
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2046Q1	262.7%	$445	$98	$543
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2046Q1	262.7%	$557	$123	$680
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$19,578	$4,307	**$23,885**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 19													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2046Q2	75.1%	$9,511	$2,092	$11,603
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$9,511	$2,092	$11,603
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2046Q1	262.7%	$497	$109	$607
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2046Q1	262.7%	$198	$44	$242
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2046Q1	262.7%	$2,992	$658	$3,650
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2046Q1	262.7%	$198	$44	$242
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2046Q1	262.7%	$198	$44	$242
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2046Q1	262.7%	$198	$44	$242
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2046Q4	276.8%	$622	$137	$758
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2046Q4	276.8%	$416	$91	$507
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2046Q1	262.7%	$198	$44	$242
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2046Q4	276.8%	$2,071	$456	$2,526
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2046Q4	276.8%	$416	$91	$507
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2046Q4	276.8%	$517	$114	$630
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$18,032	$3,967	**$21,999**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 20													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2046Q4	76.8%	$10,700	$2,354	$13,053
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$10,700	$2,354	$13,053
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2046Q3	272.1%	$572	$126	$697
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2046Q3	272.1%	$226	$50	$276
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2046Q3	272.1%	$3,418	$752	$4,170
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2046Q3	272.1%	$226	$50	$276
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2046Q3	272.1%	$226	$50	$276
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2046Q3	272.1%	$226	$50	$276
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2047Q2	286.4%	$709	$156	$865
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2047Q2	286.4%	$474	$104	$578
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2046Q3	272.1%	$226	$50	$276
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2047Q2	286.4%	$2,366	$521	$2,887
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2047Q2	286.4%	$474	$104	$578
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2047Q2	286.4%	$594	$131	$724
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$20,438	$4,496	**$24,934**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 21													
09	CHANNELS & CANALS	$8,089	$1,780	22.0%	$9,869	1.9%	$8,239	$1,813	$10,052	2048Q3	83.0%	$15,081	$3,318	$18,399
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$8,089	$1,780	22.0%	**$9,869**		$8,239	$1,813	$10,052			$15,081	$3,318	$18,399
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$202	$44	22.0%	$246	3.1%	$208	$46	$254	2048Q2	306.5%	$847	$186	$1,033
1.0%	Planning & Environmental Compliance	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2048Q2	306.5%	$339	$75	$414
15.0%	Engineering & Design	$1,213	$267	22.0%	$1,480	3.1%	$1,251	$275	$1,526	2048Q2	306.5%	$5,083	$1,118	$6,202
1.0%	Reviews, ATRs, IEPRs, VE	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2048Q2	306.5%	$339	$75	$414
1.0%	Life Cycle Updates (cost, schedule, risks)	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2048Q2	306.5%	$339	$75	$414
1.0%	Contracting & Reprographics	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2048Q2	306.5%	$339	$75	$414
3.0%	Engineering During Construction	$243	$53	22.0%	$296	3.1%	$251	$55	$306	2049Q1	322.3%	$1,058	$233	$1,291
2.0%	Planning During Construction	$162	$36	22.0%	$198	3.1%	$167	$37	$204	2049Q1	322.3%	$705	$155	$861
1.0%	Project Operations	$81	$18	22.0%	$99	3.1%	$84	$18	$102	2048Q2	306.5%	$339	$75	$414
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$809	$178	22.0%	$987	3.1%	$834	$183	$1,018	2049Q1	322.3%	$3,523	$775	$4,297
2.0%	Project Operation:	$162	$36	22.0%	$198	3.1%	$167	$37	$204	2049Q1	322.3%	$705	$155	$861
2.5%	Project Management	$202	$44	22.0%	$246	3.1%	$208	$46	$254	2049Q1	322.3%	$880	$194	$1,073
	CONTRACT COST TOTALS:	$11,487	$2,527		**$14,014**		$11,742	$2,583	$14,326			$29,579	$6,507	**$36,087**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 22													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2049Q3	86.7%	$11,298	$2,486	$13,784
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$11,298	$2,486	$13,784
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2049Q2	327.6%	$657	$145	$801
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2049Q2	327.6%	$260	$57	$317
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2049Q2	327.6%	$3,928	$864	$4,792
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2049Q2	327.6%	$260	$57	$317
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2049Q2	327.6%	$260	$57	$317
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2049Q2	327.6%	$260	$57	$317
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2049Q4	338.7%	$805	$177	$982
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2049Q4	338.7%	$538	$118	$657
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2049Q2	327.6%	$260	$57	$317
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2049Q4	338.7%	$2,687	$591	$3,278
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2049Q4	338.7%	$538	$118	$657
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2049Q4	338.7%	$674	$148	$822
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$22,426	$4,934	**$27,360**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 23													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2050Q1	88.5%	$10,243	$2,254	$12,497
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$10,243	$2,254	$12,497
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2049Q4	338.7%	$602	$132	$734
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2049Q4	338.7%	$240	$53	$292
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2049Q4	338.7%	$3,619	$796	$4,415
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2049Q4	338.7%	$240	$53	$292
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2049Q4	338.7%	$240	$53	$292
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2049Q4	338.7%	$240	$53	$292
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2050Q3	355.7%	$752	$165	$917
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2050Q3	355.7%	$503	$111	$613
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2049Q4	338.7%	$240	$53	$292
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2050Q3	355.7%	$2,504	$551	$3,055
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2050Q3	355.7%	$503	$111	$613
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2050Q3	355.7%	$625	$137	$762
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$20,548	$4,521	**$25,069**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 24													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2051Q3	94.2%	$11,755	$2,586	$14,341
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$11,755	$2,586	$14,341
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2051Q2	373.2%	$727	$160	$887
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2051Q2	373.2%	$288	$63	$351
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2051Q2	373.2%	$4,347	$956	$5,304
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2051Q2	373.2%	$288	$63	$351
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2051Q2	373.2%	$288	$63	$351
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2051Q2	373.2%	$288	$63	$351
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2052Q2	397.8%	$914	$201	$1,115
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2052Q2	397.8%	$611	$134	$745
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2051Q2	373.2%	$288	$63	$351
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2052Q2	397.8%	$3,049	$671	$3,720
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2052Q2	397.8%	$611	$134	$745
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2052Q2	397.8%	$765	$168	$933
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$24,217	$5,328	**$29,545**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 25													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2052Q2	97.1%	$10,711	$2,356	$13,067
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$10,711	$2,356	$13,067
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2052Q2	397.8%	$683	$150	$833
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2052Q2	397.8%	$272	$60	$332
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2052Q2	397.8%	$4,106	$903	$5,010
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2052Q2	397.8%	$272	$60	$332
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2052Q2	397.8%	$272	$60	$332
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2052Q2	397.8%	$272	$60	$332
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2052Q4	410.8%	$843	$185	$1,028
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2052Q4	410.8%	$563	$124	$687
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2052Q2	397.8%	$272	$60	$332
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2052Q4	410.8%	$2,807	$618	$3,424
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2052Q4	410.8%	$563	$124	$687
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2052Q4	410.8%	$700	$154	$855
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$22,337	$4,914	**$27,251**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)					
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018						
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE					
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)	
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*	
	O&M CONTRACT 26														
09	CHANNELS & CANALS	$23,210	$5,106	22.0%	$28,316	1.9%	$23,641	$5,201	$28,842	2053Q2	101.1%	$47,539	$10,459		$57,998
							$0								
	CONSTRUCTION ESTIMATE TOTALS:	$23,210	$5,106	22.0%	**$28,316**		$23,641	$5,201	$28,842			$47,539	$10,459		$57,998
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0		$0
30	PLANNING, ENGINEERING & DESIGN														
2.5%	Project Management	$580	$128	22.0%	$708	3.1%	$598	$132	$730	2052Q2	397.8%	$2,977	$655		$3,632
1.0%	Planning & Environmental Compliance	$232	$51	22.0%	$283	3.1%	$239	$53	$292	2052Q2	397.8%	$1,191	$262		$1,453
15.0%	Engineering & Design	$3,482	$766	22.0%	$4,248	3.1%	$3,590	$790	$4,380	2052Q2	397.8%	$17,872	$3,932		$21,804
1.0%	Reviews, ATRs, IEPRs, VE	$232	$51	22.0%	$283	3.1%	$239	$53	$292	2052Q2	397.8%	$1,191	$262		$1,453
1.0%	Life Cycle Updates (cost, schedule, risks)	$232	$51	22.0%	$283	3.1%	$239	$53	$292	2052Q2	397.8%	$1,191	$262		$1,453
1.0%	Contracting & Reprographics	$232	$51	22.0%	$283	3.1%	$239	$53	$292	2052Q2	397.8%	$1,191	$262		$1,453
3.0%	Engineering During Construction	$696	$153	22.0%	$849	3.1%	$718	$158	$875	2053Q4	437.4%	$3,856	$848		$4,704
2.0%	Planning During Construction	$464	$102	22.0%	$566	3.1%	$478	$105	$584	2053Q4	437.4%	$2,571	$566		$3,136
1.0%	Project Operations	$232	$51	22.0%	$283	3.1%	$239	$53	$292	2052Q2	397.8%	$1,191	$262		$1,453
31	CONSTRUCTION MANAGEMENT														
10.0%	Construction Management	$2,321	$511	22.0%	$2,832	3.1%	$2,393	$526	$2,919	2053Q4	437.4%	$12,859	$2,829		$15,687
2.0%	Project Operation:	$464	$102	22.0%	$566	3.1%	$478	$105	$584	2053Q4	437.4%	$2,571	$566		$3,136
2.5%	Project Management	$580	$128	22.0%	$708	3.1%	$598	$132	$730	2053Q4	437.4%	$3,213	$707		$3,920
	CONTRACT COST TOTALS:	$32,957	$7,251		**$40,208**		$33,690	$7,412	$41,102			$99,411	$21,871		**$121,282**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)					
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018						
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE					
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)	
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*	
	O&M CONTRACT 27														
09	CHANNELS & CANALS	$19,187	$4,221	22.0%	$23,408	1.9%	$19,543	$4,299	$23,843	2054Q4	107.2%	$40,487	$8,907		$49,394
							$0								
	CONSTRUCTION ESTIMATE TOTALS:	$19,187	$4,221	22.0%	**$23,408**		$19,543	$4,299	$23,843			$40,487	$8,907		$49,394
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0		$0
30	PLANNING, ENGINEERING & DESIGN														
2.5%	Project Management	$480	$106	22.0%	$586	3.1%	$495	$109	$604	2054Q2	451.0%	$2,727	$600		$3,326
1.0%	Planning & Environmental Compliance	$192	$42	22.0%	$234	3.1%	$198	$44	$242	2054Q2	451.0%	$1,091	$240		$1,331
15.0%	Engineering & Design	$2,878	$633	22.0%	$3,511	3.1%	$2,967	$653	$3,620	2054Q2	451.0%	$16,348	$3,597		$19,945
1.0%	Reviews, ATRs, IEPRs, VE	$192	$42	22.0%	$234	3.1%	$198	$44	$242	2054Q2	451.0%	$1,091	$240		$1,331
1.0%	Life Cycle Updates (cost, schedule, risks)	$192	$42	22.0%	$234	3.1%	$198	$44	$242	2054Q2	451.0%	$1,091	$240		$1,331
1.0%	Contracting & Reprographics	$192	$42	22.0%	$234	3.1%	$198	$44	$242	2054Q2	451.0%	$1,091	$240		$1,331
3.0%	Engineering During Construction	$576	$127	22.0%	$703	3.1%	$594	$131	$725	2055Q1	472.5%	$3,400	$748		$4,147
2.0%	Planning During Construction	$384	$84	22.0%	$468	3.1%	$396	$87	$483	2055Q1	472.5%	$2,266	$499		$2,765
1.0%	Project Operations	$192	$42	22.0%	$234	3.1%	$198	$44	$242	2054Q2	451.0%	$1,091	$240		$1,331
31	CONSTRUCTION MANAGEMENT														
10.0%	Construction Management	$1,919	$422	22.0%	$2,341	3.1%	$1,978	$435	$2,414	2055Q1	472.5%	$11,326	$2,492		$13,818
2.0%	Project Operation:	$384	$84	22.0%	$468	3.1%	$396	$87	$483	2055Q1	472.5%	$2,266	$499		$2,765
2.5%	Project Management	$480	$106	22.0%	$586	3.1%	$495	$109	$604	2055Q1	472.5%	$2,833	$623		$3,456
	CONTRACT COST TOTALS:	$27,248	$5,995		**$33,243**		$27,854	$6,128	$33,982			$87,107	$19,163		**$106,270**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 28													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2055Q3	110.3%	$12,724	$2,799	$15,523
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$12,724	$2,799	$15,523
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2055Q2	479.6%	$890	$196	$1,086
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2055Q2	479.6%	$353	$78	$430
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2055Q2	479.6%	$5,325	$1,171	$6,496
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2055Q2	479.6%	$353	$78	$430
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2055Q2	479.6%	$353	$78	$430
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2055Q2	479.6%	$353	$78	$430
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2056Q1	502.2%	$1,105	$243	$1,348
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2056Q1	502.2%	$739	$163	$901
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2055Q2	479.6%	$353	$78	$430
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2056Q1	502.2%	$3,688	$811	$4,499
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2056Q1	502.2%	$739	$163	$901
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2056Q1	502.2%	$925	$204	$1,129
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$27,898	$6,137	**$34,035**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 29													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2056Q2	113.4%	$11,594	$2,551	$14,145
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$11,594	$2,551	$14,145
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2056Q1	502.2%	$826	$182	$1,007
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2056Q1	502.2%	$329	$72	$401
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2056Q1	502.2%	$4,967	$1,093	$6,060
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2056Q1	502.2%	$329	$72	$401
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2056Q1	502.2%	$329	$72	$401
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2056Q1	502.2%	$329	$72	$401
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2056Q4	525.6%	$1,032	$227	$1,259
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2056Q4	525.6%	$690	$152	$842
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2056Q1	502.2%	$329	$72	$401
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2056Q4	525.6%	$3,438	$756	$4,194
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2056Q4	525.6%	$690	$152	$842
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2056Q4	525.6%	$858	$189	$1,047
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$25,740	$5,663	**$31,403**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 30													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2056Q4	115.5%	$13,043	$2,869	$15,912
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$13,043	$2,869	$15,912
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2056Q3	517.7%	$949	$209	$1,158
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2056Q3	517.7%	$376	$83	$458
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2056Q3	517.7%	$5,674	$1,248	$6,923
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2056Q3	517.7%	$376	$83	$458
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2056Q3	517.7%	$376	$83	$458
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2056Q3	517.7%	$376	$83	$458
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2057Q2	541.5%	$1,177	$259	$1,436
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2057Q2	541.5%	$787	$173	$960
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2056Q3	517.7%	$376	$83	$458
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2057Q2	541.5%	$3,928	$864	$4,793
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2057Q2	541.5%	$787	$173	$960
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2057Q2	541.5%	$985	$217	$1,202
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$29,210	$6,426	**$35,636**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 31													
09	CHANNELS & CANALS	$8,567	$1,885	22.0%	$10,452	1.9%	$8,726	$1,920	$10,646	2058Q3	123.1%	$19,471	$4,284	$23,754
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$8,567	$1,885	22.0%	**$10,452**		$8,726	$1,920	$10,646			$19,471	$4,284	$23,754
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$214	$47	22.0%	$261	3.1%	$221	$49	$269	2058Q2	574.8%	$1,489	$328	$1,816
1.0%	Planning & Environmental Compliance	$86	$19	22.0%	$105	3.1%	$89	$20	$108	2058Q2	574.8%	$598	$132	$730
15.0%	Engineering & Design	$1,285	$283	22.0%	$1,568	3.1%	$1,325	$291	$1,616	2058Q2	574.8%	$8,940	$1,967	$10,907
1.0%	Reviews, ATRs, IEPRs, VE	$86	$19	22.0%	$105	3.1%	$89	$20	$108	2058Q2	574.8%	$598	$132	$730
1.0%	Life Cycle Updates (cost, schedule, risks)	$86	$19	22.0%	$105	3.1%	$89	$20	$108	2058Q2	574.8%	$598	$132	$730
1.0%	Contracting & Reprographics	$86	$19	22.0%	$105	3.1%	$89	$20	$108	2058Q2	574.8%	$598	$132	$730
3.0%	Engineering During Construction	$257	$57	22.0%	$314	3.1%	$265	$58	$323	2059Q1	601.1%	$1,858	$409	$2,267
2.0%	Planning During Construction	$171	$38	22.0%	$209	3.1%	$176	$39	$215	2059Q1	601.1%	$1,236	$272	$1,508
1.0%	Project Operations	$86	$19	22.0%	$105	3.1%	$89	$20	$108	2058Q2	574.8%	$598	$132	$730
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$857	$189	22.0%	$1,046	3.1%	$884	$194	$1,078	2059Q1	601.1%	$6,195	$1,363	$7,558
2.0%	Project Operation:	$171	$38	22.0%	$209	3.1%	$176	$39	$215	2059Q1	601.1%	$1,236	$272	$1,508
2.5%	Project Management	$214	$47	22.0%	$261	3.1%	$221	$49	$269	2059Q1	601.1%	$1,547	$340	$1,887
	CONTRACT COST TOTALS:	$12,166	$2,677		**$14,843**		$12,437	$2,736	$15,173			$44,963	$9,892	**$54,855**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 32													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2059Q3	127.6%	$13,772	$3,030	$16,802
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$13,772	$3,030	$16,802
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2059Q2	609.9%	$1,091	$240	$1,330
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2059Q2	609.9%	$432	$95	$527
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2059Q2	609.9%	$6,521	$1,435	$7,956
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2059Q2	609.9%	$432	$95	$527
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2059Q2	609.9%	$432	$95	$527
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2059Q2	609.9%	$432	$95	$527
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2059Q4	628.4%	$1,337	$294	$1,631
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2059Q4	628.4%	$894	$197	$1,090
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2059Q2	609.9%	$432	$95	$527
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2059Q4	628.4%	$4,461	$981	$5,442
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2059Q4	628.4%	$894	$197	$1,090
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2059Q4	628.4%	$1,119	$246	$1,365
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$32,247	$7,094	**$39,341**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 33													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2060Q1	129.8%	$12,487	$2,747	$15,234
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$12,487	$2,747	$15,234
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2059Q4	628.4%	$999	$220	$1,218
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2059Q4	628.4%	$398	$88	$486
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2059Q4	628.4%	$6,008	$1,322	$7,329
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2059Q4	628.4%	$398	$88	$486
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2059Q4	628.4%	$398	$88	$486
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2059Q4	628.4%	$398	$88	$486
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2060Q3	656.5%	$1,248	$275	$1,523
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2060Q3	656.5%	$835	$184	$1,018
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2059Q4	628.4%	$398	$88	$486
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2060Q3	656.5%	$4,157	$915	$5,072
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2060Q3	656.5%	$835	$184	$1,018
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2060Q3	656.5%	$1,037	$228	$1,266
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$29,595	$6,511	**$36,106**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 34													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2061Q3	136.8%	$14,329	$3,152	$17,481
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$14,329	$3,152	$17,481
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2061Q2	685.7%	$1,207	$266	$1,472
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2061Q2	685.7%	$478	$105	$583
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2061Q2	685.7%	$7,217	$1,588	$8,805
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2061Q2	685.7%	$478	$105	$583
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2061Q2	685.7%	$478	$105	$583
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2061Q2	685.7%	$478	$105	$583
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2062Q2	726.5%	$1,517	$334	$1,851
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2062Q2	726.5%	$1,014	$223	$1,237
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2061Q2	685.7%	$478	$105	$583
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2062Q2	726.5%	$5,062	$1,114	$6,175
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2062Q2	726.5%	$1,014	$223	$1,237
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2062Q2	726.5%	$1,270	$279	$1,549
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$35,019	$7,704	**$42,723**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 35													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2062Q2	140.3%	$13,057	$2,872	$15,929
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$13,057	$2,872	$15,929
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2062Q2	726.5%	$1,133	$249	$1,383
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2062Q2	726.5%	$452	$99	$551
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2062Q2	726.5%	$6,817	$1,500	$8,317
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2062Q2	726.5%	$452	$99	$551
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2062Q2	726.5%	$452	$99	$551
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2062Q2	726.5%	$452	$99	$551
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2062Q4	748.0%	$1,399	$308	$1,707
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2062Q4	748.0%	$935	$206	$1,141
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2062Q2	726.5%	$452	$99	$551
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2062Q4	748.0%	$4,660	$1,025	$5,685
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2062Q4	748.0%	$935	$206	$1,141
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2062Q4	748.0%	$1,163	$256	$1,419
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$32,358	$7,119	**$39,477**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 36													
09	CHANNELS & CANALS	$23,144	$5,092	22.0%	$28,236	1.9%	$23,574	$5,186	$28,760	2063Q2	145.1%	$57,785	$12,713	$70,498
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$23,144	$5,092	22.0%	**$28,236**		$23,574	$5,186	$28,760			$57,785	$12,713	$70,498
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$579	$127	22.0%	$706	3.1%	$597	$131	$728	2062Q2	726.5%	$4,934	$1,085	$6,019
1.0%	Planning & Environmental Compliance	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2062Q2	726.5%	$1,968	$433	$2,402
15.0%	Engineering & Design	$3,472	$764	22.0%	$4,236	3.1%	$3,580	$788	$4,367	2062Q2	726.5%	$29,586	$6,509	$36,095
1.0%	Reviews, ATRs, IEPRs, VE	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2062Q2	726.5%	$1,968	$433	$2,402
1.0%	Life Cycle Updates (cost, schedule, risks)	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2062Q2	726.5%	$1,968	$433	$2,402
1.0%	Contracting & Reprographics	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2062Q2	726.5%	$1,968	$433	$2,402
3.0%	Engineering During Construction	$694	$153	22.0%	$847	3.1%	$716	$157	$873	2063Q4	792.1%	$6,383	$1,404	$7,787
2.0%	Planning During Construction	$463	$102	22.0%	$565	3.1%	$477	$105	$582	2063Q4	792.1%	$4,258	$937	$5,195
1.0%	Project Operations	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2062Q2	726.5%	$1,968	$433	$2,402
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$2,314	$509	22.0%	$2,823	3.1%	$2,386	$525	$2,911	2063Q4	792.1%	$21,283	$4,682	$25,966
2.0%	Project Operation:	$463	$102	22.0%	$565	3.1%	$477	$105	$582	2063Q4	792.1%	$4,258	$937	$5,195
2.5%	Project Management	$579	$127	22.0%	$706	3.1%	$597	$131	$728	2063Q4	792.1%	$5,325	$1,172	$6,497
	CONTRACT COST TOTALS:	$32,863	$7,230		**$40,093**		$33,594	$7,391	$40,985			$143,657	$31,604	**$175,261**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)					
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018						
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE					
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)	
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*	
	O&M CONTRACT 37														
09	CHANNELS & CANALS	$19,102	$4,202	22.0%	$23,304	1.9%	$19,457	$4,280	$23,737	2064Q4	152.5%	$49,135	$10,810		$59,944
							$0								
	CONSTRUCTION ESTIMATE TOTALS:	$19,102	$4,202	22.0%	**$23,304**		$19,457	$4,280	$23,737			$49,135	$10,810		$59,944
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0		$0
30	PLANNING, ENGINEERING & DESIGN														
2.5%	Project Management	$478	$105	22.0%	$583	3.1%	$493	$108	$601	2064Q2	814.7%	$4,508	$992		$5,500
1.0%	Planning & Environmental Compliance	$191	$42	22.0%	$233	3.1%	$197	$43	$240	2064Q2	814.7%	$1,801	$396		$2,198
15.0%	Engineering & Design	$2,865	$630	22.0%	$3,495	3.1%	$2,954	$650	$3,604	2064Q2	814.7%	$27,019	$5,944		$32,963
1.0%	Reviews, ATRs, IEPRs, VE	$191	$42	22.0%	$233	3.1%	$197	$43	$240	2064Q2	814.7%	$1,801	$396		$2,198
1.0%	Life Cycle Updates (cost, schedule, risks)	$191	$42	22.0%	$233	3.1%	$197	$43	$240	2064Q2	814.7%	$1,801	$396		$2,198
1.0%	Contracting & Reprographics	$191	$42	22.0%	$233	3.1%	$197	$43	$240	2064Q2	814.7%	$1,801	$396		$2,198
3.0%	Engineering During Construction	$573	$126	22.0%	$699	3.1%	$591	$130	$721	2065Q1	850.4%	$5,615	$1,235		$6,850
2.0%	Planning During Construction	$382	$84	22.0%	$466	3.1%	$394	$87	$480	2065Q1	850.4%	$3,743	$823		$4,566
1.0%	Project Operations	$191	$42	22.0%	$233	3.1%	$197	$43	$240	2064Q2	814.7%	$1,801	$396		$2,198
31	CONSTRUCTION MANAGEMENT														
10.0%	Construction Management	$1,910	$420	22.0%	$2,330	3.1%	$1,969	$433	$2,402	2065Q1	850.4%	$18,715	$4,117		$22,832
2.0%	Project Operation:	$382	$84	22.0%	$466	3.1%	$394	$87	$480	2065Q1	850.4%	$3,743	$823		$4,566
2.5%	Project Management	$478	$105	22.0%	$583	3.1%	$493	$108	$601	2065Q1	850.4%	$4,684	$1,030		$5,714
	CONTRACT COST TOTALS:	$27,125	$5,968		**$33,093**		$27,728	$6,100	$33,829			$126,167	$27,757		**$153,924**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 38													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2065Q3	156.3%	$15,510	$3,412	$18,922
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$15,510	$3,412	$18,922
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2065Q2	862.3%	$1,478	$325	$1,803
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2065Q2	862.3%	$585	$129	$714
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2065Q2	862.3%	$8,840	$1,945	$10,784
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2065Q2	862.3%	$585	$129	$714
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2065Q2	862.3%	$585	$129	$714
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2065Q2	862.3%	$585	$129	$714
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2066Q1	899.8%	$1,835	$404	$2,238
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2066Q1	899.8%	$1,227	$270	$1,497
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2065Q2	862.3%	$585	$129	$714
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2066Q1	899.8%	$6,123	$1,347	$7,470
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2066Q1	899.8%	$1,227	$270	$1,497
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2066Q1	899.8%	$1,536	$338	$1,874
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$40,702	$8,954	**$49,656**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 39													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2066Q2	160.1%	$14,133	$3,109	$17,242
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$14,133	$3,109	$17,242
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2066Q1	899.8%	$1,371	$302	$1,673
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2066Q1	899.8%	$546	$120	$667
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2066Q1	899.8%	$8,246	$1,814	$10,061
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2066Q1	899.8%	$546	$120	$667
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2066Q1	899.8%	$546	$120	$667
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2066Q1	899.8%	$546	$120	$667
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2066Q4	938.6%	$1,713	$377	$2,090
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2066Q4	938.6%	$1,146	$252	$1,398
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2066Q1	899.8%	$546	$120	$667
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2066Q4	938.6%	$5,708	$1,256	$6,963
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2066Q4	938.6%	$1,146	$252	$1,398
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2066Q4	938.6%	$1,424	$313	$1,738
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$37,619	$8,276	**$45,895**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 40													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2066Q4	162.7%	$15,899	$3,498	$19,397
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$15,899	$3,498	$19,397
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2066Q3	925.5%	$1,575	$347	$1,922
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2066Q3	925.5%	$624	$137	$761
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2066Q3	925.5%	$9,420	$2,072	$11,493
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2066Q3	925.5%	$624	$137	$761
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2066Q3	925.5%	$624	$137	$761
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2066Q3	925.5%	$624	$137	$761
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2067Q2	965.0%	$1,954	$430	$2,384
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2067Q2	965.0%	$1,307	$287	$1,594
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2066Q3	925.5%	$624	$137	$761
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2067Q2	965.0%	$6,522	$1,435	$7,957
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2067Q2	965.0%	$1,307	$287	$1,594
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2067Q2	965.0%	$1,636	$360	$1,996
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$42,739	$9,403	**$52,142**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 41													
09	CHANNELS & CANALS	$8,714	$1,917	22.0%	$10,631	1.9%	$8,876	$1,953	$10,828	2068Q3	172.0%	$24,142	$5,311	$29,453
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$8,714	$1,917	22.0%	**$10,631**		$8,876	$1,953	$10,828			$24,142	$5,311	$29,453
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$218	$48	22.0%	$266	3.1%	$225	$49	$274	2068Q2	1020.3%	$2,518	$554	$3,072
1.0%	Planning & Environmental Compliance	$87	$19	22.0%	$106	3.1%	$90	$20	$109	2068Q2	1020.3%	$1,005	$221	$1,226
15.0%	Engineering & Design	$1,307	$288	22.0%	$1,595	3.1%	$1,348	$296	$1,644	2068Q2	1020.3%	$15,097	$3,321	$18,418
1.0%	Reviews, ATRs, IEPRs, VE	$87	$19	22.0%	$106	3.1%	$90	$20	$109	2068Q2	1020.3%	$1,005	$221	$1,226
1.0%	Life Cycle Updates (cost, schedule, risks)	$87	$19	22.0%	$106	3.1%	$90	$20	$109	2068Q2	1020.3%	$1,005	$221	$1,226
1.0%	Contracting & Reprographics	$87	$19	22.0%	$106	3.1%	$90	$20	$109	2068Q2	1020.3%	$1,005	$221	$1,226
3.0%	Engineering During Construction	$261	$57	22.0%	$318	3.1%	$269	$59	$328	2069Q1	1064.0%	$3,132	$689	$3,821
2.0%	Planning During Construction	$174	$38	22.0%	$212	3.1%	$179	$39	$219	2069Q1	1064.0%	$2,088	$459	$2,548
1.0%	Project Operations	$87	$19	22.0%	$106	3.1%	$90	$20	$109	2068Q2	1020.3%	$1,005	$221	$1,226
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$871	$192	22.0%	$1,063	3.1%	$898	$198	$1,096	2069Q1	1064.0%	$10,453	$2,300	$12,753
2.0%	Project Operation:	$174	$38	22.0%	$212	3.1%	$179	$39	$219	2069Q1	1064.0%	$2,088	$459	$2,548
2.5%	Project Management	$218	$48	22.0%	$266	3.1%	$225	$49	$274	2069Q1	1064.0%	$2,616	$576	$3,192
	CONTRACT COST TOTALS:	$12,372	$2,722		**$15,094**		$12,647	$2,782	$15,430			$67,159	$14,775	**$81,934**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 42													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2069Q3	177.4%	$16,788	$3,693	$20,482
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$16,788	$3,693	$20,482
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2069Q2	1078.6%	$1,811	$398	$2,209
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2069Q2	1078.6%	$717	$158	$875
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2069Q2	1078.6%	$10,827	$2,382	$13,209
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2069Q2	1078.6%	$717	$158	$875
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2069Q2	1078.6%	$717	$158	$875
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2069Q2	1078.6%	$717	$158	$875
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2069Q4	1109.2%	$2,219	$488	$2,707
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2069Q4	1109.2%	$1,484	$326	$1,810
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2069Q2	1078.6%	$717	$158	$875
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2069Q4	1109.2%	$7,406	$1,629	$9,035
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2069Q4	1109.2%	$1,484	$326	$1,810
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2069Q4	1109.2%	$1,858	$409	$2,266
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$47,460	$10,441	**$57,901**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 43													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2070Q1	180.2%	$15,221	$3,349	$18,570
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$15,221	$3,349	$18,570
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2069Q4	1109.2%	$1,658	$365	$2,023
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2069Q4	1109.2%	$661	$145	$806
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2069Q4	1109.2%	$9,974	$2,194	$12,168
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2069Q4	1109.2%	$661	$145	$806
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2069Q4	1109.2%	$661	$145	$806
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2069Q4	1109.2%	$661	$145	$806
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2070Q3	1156.0%	$2,072	$456	$2,528
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2070Q3	1156.0%	$1,386	$305	$1,690
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2069Q4	1109.2%	$661	$145	$806
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2070Q3	1156.0%	$6,902	$1,518	$8,420
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2070Q3	1156.0%	$1,386	$305	$1,690
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2070Q3	1156.0%	$1,722	$379	$2,101
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$43,624	$9,597	**$53,222**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 44													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2071Q3	188.6%	$17,467	$3,843	$21,309
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$17,467	$3,843	$21,309
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2071Q2	1204.4%	$2,004	$441	$2,445
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2071Q2	1204.4%	$793	$175	$968
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2071Q2	1204.4%	$11,982	$2,636	$14,618
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2071Q2	1204.4%	$793	$175	$968
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2071Q2	1204.4%	$793	$175	$968
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2071Q2	1204.4%	$793	$175	$968
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2072Q2	1272.2%	$2,518	$554	$3,072
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2072Q2	1272.2%	$1,684	$370	$2,054
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2071Q2	1204.4%	$793	$175	$968
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2072Q2	1272.2%	$8,403	$1,849	$10,252
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2072Q2	1272.2%	$1,684	$370	$2,054
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2072Q2	1272.2%	$2,108	$464	$2,572
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$51,816	$11,400	**$63,216**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 45													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2072Q2	192.9%	$15,916	$3,502	$19,417
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$15,916	$3,502	$19,417
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2072Q2	1272.2%	$1,882	$414	$2,296
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2072Q2	1272.2%	$750	$165	$915
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2072Q2	1272.2%	$11,318	$2,490	$13,808
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2072Q2	1272.2%	$750	$165	$915
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2072Q2	1272.2%	$750	$165	$915
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2072Q2	1272.2%	$750	$165	$915
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2072Q4	1307.9%	$2,322	$511	$2,833
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2072Q4	1307.9%	$1,553	$342	$1,895
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2072Q2	1272.2%	$750	$165	$915
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2072Q4	1307.9%	$7,736	$1,702	$9,439
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2072Q4	1307.9%	$1,553	$342	$1,895
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2072Q4	1307.9%	$1,930	$425	$2,355
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$47,960	$10,551	**$58,511**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)					
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018						
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE					
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)	
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*	
	O&M CONTRACT 46														
09	CHANNELS & CANALS	$23,120	$5,086	22.0%	$28,206	1.9%	$23,549	$5,181	$28,730	2073Q2	198.8%	$70,367	$15,481		$85,847
							$0								
	CONSTRUCTION ESTIMATE TOTALS:	$23,120	$5,086	22.0%	**$28,206**		$23,549	$5,181	$28,730			$70,367	$15,481		$85,847
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0		$0
30	PLANNING, ENGINEERING & DESIGN														
2.5%	Project Management	$578	$127	22.0%	$705	3.1%	$596	$131	$727	2072Q2	1272.2%	$8,177	$1,799		$9,976
1.0%	Planning & Environmental Compliance	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2072Q2	1272.2%	$3,268	$719		$3,987
15.0%	Engineering & Design	$3,468	$763	22.0%	$4,231	3.1%	$3,576	$787	$4,362	2072Q2	1272.2%	$49,062	$10,794		$59,856
1.0%	Reviews, ATRs, IEPRs, VE	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2072Q2	1272.2%	$3,268	$719		$3,987
1.0%	Life Cycle Updates (cost, schedule, risks)	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2072Q2	1272.2%	$3,268	$719		$3,987
1.0%	Contracting & Reprographics	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2072Q2	1272.2%	$3,268	$719		$3,987
3.0%	Engineering During Construction	$694	$153	22.0%	$847	3.1%	$716	$157	$873	2073Q4	1381.1%	$10,597	$2,331		$12,929
2.0%	Planning During Construction	$462	$102	22.0%	$564	3.1%	$476	$105	$581	2073Q4	1381.1%	$7,055	$1,552		$8,607
1.0%	Project Operations	$231	$51	22.0%	$282	3.1%	$238	$52	$291	2072Q2	1272.2%	$3,268	$719		$3,987
31	CONSTRUCTION MANAGEMENT														
10.0%	Construction Management	$2,312	$509	22.0%	$2,821	3.1%	$2,384	$524	$2,908	2073Q4	1381.1%	$35,304	$7,767		$43,071
2.0%	Project Operation:	$462	$102	22.0%	$564	3.1%	$476	$105	$581	2073Q4	1381.1%	$7,055	$1,552		$8,607
2.5%	Project Management	$578	$127	22.0%	$705	3.1%	$596	$131	$727	2073Q4	1381.1%	$8,826	$1,942		$10,768
	CONTRACT COST TOTALS:	$32,829	$7,222		**$40,051**		$33,559	$7,383	$40,942			$212,782	$46,812		**$259,594**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)					
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018						
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE					
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)	
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*	
	O&M CONTRACT 47														
09	CHANNELS & CANALS	$19,853	$4,368	22.0%	$24,221	1.9%	$20,222	$4,449	$24,670	2074Q4	207.8%	$62,250	$13,695		$75,945
							$0								
	CONSTRUCTION ESTIMATE TOTALS:	$19,853	$4,368	22.0%	**$24,221**		$20,222	$4,449	$24,670			$62,250	$13,695		$75,945
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0		$0
30	PLANNING, ENGINEERING & DESIGN														
2.5%	Project Management	$496	$109	22.0%	$605	3.1%	$511	$113	$624	2074Q2	1418.6%	$7,766	$1,708		$9,474
1.0%	Planning & Environmental Compliance	$199	$44	22.0%	$243	3.1%	$205	$45	$250	2074Q2	1418.6%	$3,116	$685		$3,801
15.0%	Engineering & Design	$2,978	$655	22.0%	$3,633	3.1%	$3,070	$675	$3,746	2074Q2	1418.6%	$46,626	$10,258		$56,883
1.0%	Reviews, ATRs, IEPRs, VE	$199	$44	22.0%	$243	3.1%	$205	$45	$250	2074Q2	1418.6%	$3,116	$685		$3,801
1.0%	Life Cycle Updates (cost, schedule, risks)	$199	$44	22.0%	$243	3.1%	$205	$45	$250	2074Q2	1418.6%	$3,116	$685		$3,801
1.0%	Contracting & Reprographics	$199	$44	22.0%	$243	3.1%	$205	$45	$250	2074Q2	1418.6%	$3,116	$685		$3,801
3.0%	Engineering During Construction	$596	$131	22.0%	$727	3.1%	$614	$135	$750	2075Q1	1477.8%	$9,695	$2,133		$11,828
2.0%	Planning During Construction	$397	$87	22.0%	$484	3.1%	$409	$90	$499	2075Q1	1477.8%	$6,458	$1,421		$7,879
1.0%	Project Operations	$199	$44	22.0%	$243	3.1%	$205	$45	$250	2074Q2	1418.6%	$3,116	$685		$3,801
31	CONSTRUCTION MANAGEMENT														
10.0%	Construction Management	$1,985	$437	22.0%	$2,422	3.1%	$2,047	$450	$2,497	2075Q1	1477.8%	$32,291	$7,104		$39,395
2.0%	Project Operation:	$397	$87	22.0%	$484	3.1%	$409	$90	$499	2075Q1	1477.8%	$6,458	$1,421		$7,879
2.5%	Project Management	$496	$109	22.0%	$605	3.1%	$511	$113	$624	2075Q1	1477.8%	$8,069	$1,775		$9,844
	CONTRACT COST TOTALS:	$28,193	$6,202		**$34,395**		$28,820	$6,340	$35,160			$195,191	$42,942		**$238,133**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx
PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 48													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2075Q3	212.4%	$18,906	$4,159	$23,066
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$18,906	$4,159	$23,066
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2075Q2	1497.6%	$2,454	$540	$2,994
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2075Q2	1497.6%	$972	$214	$1,186
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2075Q2	1497.6%	$14,676	$3,229	$17,904
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2075Q2	1497.6%	$972	$214	$1,186
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2075Q2	1497.6%	$972	$214	$1,186
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2075Q2	1497.6%	$972	$214	$1,186
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2076Q1	1559.9%	$3,046	$670	$3,716
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2076Q1	1559.9%	$2,036	$448	$2,485
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2075Q2	1497.6%	$972	$214	$1,186
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2076Q1	1559.9%	$10,165	$2,236	$12,402
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2076Q1	1559.9%	$2,036	$448	$2,485
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2076Q1	1559.9%	$2,550	$561	$3,111
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$60,729	$13,360	**$74,090**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 49													
09	CHANNELS & CANALS	$5,334	$1,173	22.0%	$6,507	1.9%	$5,433	$1,195	$6,628	2076Q2	217.1%	$17,228	$3,790	$21,018
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,334	$1,173	22.0%	**$6,507**		$5,433	$1,195	$6,628			$17,228	$3,790	$21,018
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2076Q1	1559.9%	$2,276	$501	$2,777
1.0%	Planning & Environmental Compliance	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2076Q1	1559.9%	$907	$200	$1,107
15.0%	Engineering & Design	$800	$176	22.0%	$976	3.1%	$825	$181	$1,006	2076Q1	1559.9%	$13,691	$3,012	$16,703
1.0%	Reviews, ATRs, IEPRs, VE	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2076Q1	1559.9%	$907	$200	$1,107
1.0%	Life Cycle Updates (cost, schedule, risks)	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2076Q1	1559.9%	$907	$200	$1,107
1.0%	Contracting & Reprographics	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2076Q1	1559.9%	$907	$200	$1,107
3.0%	Engineering During Construction	$160	$35	22.0%	$195	3.1%	$165	$36	$201	2076Q4	1624.3%	$2,844	$626	$3,470
2.0%	Planning During Construction	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2076Q4	1624.3%	$1,902	$418	$2,321
1.0%	Project Operations	$53	$12	22.0%	$65	3.1%	$55	$12	$67	2076Q1	1559.9%	$907	$200	$1,107
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$533	$117	22.0%	$650	3.1%	$550	$121	$670	2076Q4	1624.3%	$9,476	$2,085	$11,560
2.0%	Project Operation:	$107	$24	22.0%	$131	3.1%	$110	$24	$135	2076Q4	1624.3%	$1,902	$418	$2,321
2.5%	Project Management	$133	$29	22.0%	$162	3.1%	$137	$30	$167	2076Q4	1624.3%	$2,364	$520	$2,885
	CONTRACT COST TOTALS:	$7,572	$1,666		**$9,238**		$7,740	$1,703	$9,443			$56,219	$12,368	**$68,587**

****** TOTAL PROJECT COST SUMMARY ******

****** CONTRACT COST SUMMARY ******

PROJECT: Houma Navigation Canal Deepening Project
LOCATION: Houma, LA
This Estimate reflects the scope and schedule in report; 0

DISTRICT: New Orleans District
POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 8/24/2017

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared:			24-Aug-17	Program Year (Budget EC):			2018					
		Effective Price Level:			1-Oct-16	Effective Price Level Date:			1 OCT 17	FULLY FUNDED PROJECT ESTIMATE				
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	TOTAL ($K)	Mid-Point Date	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*P*	*L*	*M*	*N*	*O*
	O&M CONTRACT 50													
09	CHANNELS & CANALS	$5,941	$1,307	22.0%	$7,248	1.9%	$6,051	$1,331	$7,383	2076Q4	220.3%	$19,381	$4,264	$23,645
							$0							
	CONSTRUCTION ESTIMATE TOTALS:	$5,941	$1,307	22.0%	**$7,248**		$6,051	$1,331	$7,383			$19,381	$4,264	$23,645
01	LANDS AND DAMAGES	$0	$0	0.0%	$0	0.0%	$0	$0	$0	0	0.0%	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN													
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2076Q3	1602.5%	$2,615	$575	$3,191
1.0%	Planning & Environmental Compliance	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2076Q3	1602.5%	$1,036	$228	$1,263
15.0%	Engineering & Design	$891	$196	22.0%	$1,087	3.1%	$919	$202	$1,121	2076Q3	1602.5%	$15,639	$3,441	$19,080
1.0%	Reviews, ATRs, IEPRs, VE	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2076Q3	1602.5%	$1,036	$228	$1,263
1.0%	Life Cycle Updates (cost, schedule, risks)	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2076Q3	1602.5%	$1,036	$228	$1,263
1.0%	Contracting & Reprographics	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2076Q3	1602.5%	$1,036	$228	$1,263
3.0%	Engineering During Construction	$178	$39	22.0%	$217	3.1%	$184	$40	$224	2077Q2	1668.0%	$3,245	$714	$3,958
2.0%	Planning During Construction	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2077Q2	1668.0%	$2,169	$477	$2,646
1.0%	Project Operations	$59	$13	22.0%	$72	3.1%	$61	$13	$74	2076Q3	1602.5%	$1,036	$228	$1,263
31	CONSTRUCTION MANAGEMENT													
10.0%	Construction Management	$594	$131	22.0%	$725	3.1%	$612	$135	$747	2077Q2	1668.0%	$10,828	$2,382	$13,210
2.0%	Project Operation:	$119	$26	22.0%	$145	3.1%	$123	$27	$150	2077Q2	1668.0%	$2,169	$477	$2,646
2.5%	Project Management	$149	$33	22.0%	$182	3.1%	$154	$34	$187	2077Q2	1668.0%	$2,716	$598	$3,314
	CONTRACT COST TOTALS:	$8,435	$1,856		**$10,291**		$8,623	$1,897	$10,520			$63,940	$14,067	**$78,007**

HOUMA NAVIGATION CANAL
NAVIGATION IMPROVEMENT PROJECT

COST ESTIMATE NARRATIVE

1. Project Description

A. General: This work is in support of the proposed navigation improvements designed for the Houma Navigation Canal (HNC) located in Terrebonne Parish, Louisiana. The HNC is a 41-mile navigation channel which starts in Houma, LA and continues south into the Gulf of Mexico. Several alternatives have been studied and a tentatively selected plan (TSP) has been recommended for further study and analysis. The TSP would deepen the Canal from and elevation of -15-ft MLG to -20-ft NAVD88.

B. Purpose: The purpose of this work is to develop detailed cost estimates – consistent to the level of design – for the cost and quantities of the project features using Micro-Computer Aided Cost Estimating System (MCACES).

C. Design Features: Features of the Houma Navigation Canal TSP includes: relocation of existing pipelines and facilities, dredging a total of 39.8 miles of the waterway, construction of stone dikes along certain portions of the canal banks, and the construction of dikes and containment cells for upland and open water disposal.

2. Basis of Estimate

A. Basis of Design: The project's design documents are listed below. The project site plan and layout are presented in Appendix A.

- Feasibility Report for the Houma Navigation Canal Navigation Improvement Project, Preliminary Draft, August 2017.
- Design Plates C1 thru C19 and G1 thru G53 for the Houma Navigation Deepening – General Reevaluation Report, August 2017.

B. Basis of Quantities: The cost estimates are based on project quantity take-offs that have been calculated by the designer from the documents listed above. Dredge quantities are pay volumes and do not reflect overdepth. Stone quantities reflect initial construction losses and expected settlement. A quantities summary of the quantity take-offs are presented in Appendix B.

3. Construction Schedule

The estimate is based on initial construction occurring over a 17-year period (including relocations). A tentative project schedule is provided in Appendix C. The schedule is based on the following reasoning and assumptions:

- The pipeline relocations would need to be accomplished prior to dredging to deepen the canal,
- The Houma Lock would need to be constructed prior to dredging to deepen the canal,

- For estimating and scheduling purposes the Houma Lock construction is assumed to be competed in January 2022,
- Hydraulic dredge construction crew (2 shifts) working 12hr/shift/day, and 7 day weeks,
- Mechanical dredge construction crew (2 shifts) working 12hr/shift/day, and 7 day weeks,
- Stone placement construction crew (1 shifts) working 12hr/shift/day, and 7 day weeks,
- Typical construction crew (1 shift) working 12hr/day, and 7 day weeks.

4. Contracting Plan

This project would likely be let out in at least 8 separate contracts. The local sponsor would likely let out three contracts for the pipeline relocations. The remainder of the project would likely be let out in the following 5 Federal contracts; 1) channel improvements between miles 36.3 to 22.0, 2) channel improvements between miles 22.0 to 11.5, 3) channel improvements between miles 11.5 to 6.0, 4) channel improvements between miles 6.0 to 0.0, and 5) channel improvements between miles 0.0 to -3.5. Each of these contracts would likely be let out to one prime construction contractor. For estimating purposes, one prime construction contractor was used for each contract to reflect the prime contractor mark-up. The prime contractor would be responsible for the preparatory work, dredging, stone placement, and containment cell creation.

5. Project Construction

A. Mobilization/Demobilization: For estimating purposes it is assumed that hydraulic dredging crews and equipment would be mobilized and demobilized from within the greater Gulf Coast region for a distance of 300 miles and 150 miles respectively. And mechanical dredging and stone placement crews and equipment would be mobilized and demobilized from within the greater Gulf Coast region for a distance of 150 miles and 75 miles respectively.

B. Construction Crew Per Diem: For all work performed it is assumed that the construction crews would be lodged on a quarters barge, with costs based on ownership and operation of the quarters barge and GSA approved meals and incidentals rates.

C. Borrow/Disposal Areas and Materials: The stone for the channel bank protection along the canal is assumed to be transported by barge and tug from quarries located north of Louisiana along the Mississippi River.

D. Construction Methodology:

Relocations – It is estimated that 28 pipelines, ranging between 2.5-inches to 36-inches in diameter, and 5 cable crossings underneath HNC would require relocation. These relocations would be required to ensure 8-feet of cover from the (-) 20.0-feet NAVD88 channel depth to the top of pipe. The pipeline relocations are assumed to be accomplished with directional drilling crews. The pipeline relocation labor and equipment crews are assumed to work one 12-hour shift per day.

Access Corridor – Several access corridors would be required in order to place the hydraulic dredge pipelines from the waterways to the disposal sites. The access

corridors are assumed to be 100-ft wide. The corridor clearing is assumed to involve the use of dozer, work barge and tug crews working one 12-hour shift per day. Access would be the same for both deepening and maintenance.

- River Mile 34.0 to 32.0 and Mile 32.0 to 29.5 – Assumes an access corridor of approximately 12,600-LF in order to obtain access to Wetland Site 7E from HNC. Dredge pipe will be jack and bored beneath Bayou Gran Caillou and Grand Caillou Road.
- River Mile 29.5 to 28.0 – Assumes an access corridor of approximately 5,500-LF in order to allow for the dredge pipelines to access Wetland Sites 12 and 12B which are to the east of the HNC.
- River Mile 28.0 to 26.0 and Mile 26.0 to 24.0 – Assumes an access corridor would be constructed with an approximate total length of 5,900-LF. The corridor would be constructed on the west side of the HNC toward disposal sites A-07-A and 14A.
- River Mile 24.0 to 22.0 and 22.0 to 20.0 – Assumes an access corridor of approximately 2,500-LF in order to obtain access to Wetland Sites 15 and 15A to the west of the HNC.
- River Mile 22.0 to 20.0 – Assumes an access corridor of approximately 1,500-LF in order to obtain access to Wetland Site 16 to the west of the HNC.
- River Mile 20.0 to 18.0 – Assumes an access corridor of approximately 2,200-LF in order to allow for the dredge pipelines to access Wetland Site 19D, located west of the HNC.
- River Mile 20.0 to 18.0 – Assumes an access corridor of approximately 200-LF in order to allow for the dredge pipelines to access Wetland Site 19C, located west of the HNC.
- River Mile 18.0 to 16.0 - Assumes an access corridor of approximately 500-LF in order to obtain access to Wetland Site 20C, located west of the HNC.
- River Mile 13.0 to 11.5 – Assumes an access corridor of approximately 1,400-LF in length to allow for pipeline access to Wetland Site 24, located west of the HNC.

Hydraulic Dredging – The navigation canal improvements would require the use of a hydraulic cutterhead dredge to deepen the channel. The proposed authorized channel depth is -20 feet NAVD88 with advanced maintenance dredging of 2-ft from River Mile 36.3 to 11.5, 3-ft from River Mile 11.5 to 0.0 and 4-ft from River Mile 0.0 to -3.5. The channel bottom width at the bottom of the advanced maintenance would be of 150-feet from River Mile 36.3 to 0.0 and 300-ft from River Mile 0.0 to -3.5. The dredged channel would have side slopes of 3(h):1(v). The contractor would be allowed a 1-ft overdepth across the bottom width to assure the desired depths are attained. The hydraulically dredged material is assumed to be pumped in a pipeline to the designated disposal areas. The geotechnical boring information provided in Design Plates G1 thru G53 were reviewed to determine the

probable soil material composition that would be encountered during the dredging process. The disposal sites described below apply for both deepening and maintenance.

- River Mile 36.3 to 34.0 – It is assumed that a 27-inch hydraulic cutterhead dredge crew would be used. All dredged material from this reach would be pumped to confined upland Sites 1 and 3. Material would be placed within the outer extent of the disposal areas (west or east) first.
- River Mile 34.0 to 32.0 – A 27-inch hydraulic cutterhead dredge crew is assumed to be used in this reach. Material dredged in this location would be disposed of in Wetland Site 7E, where dike construction would be required. A pipeline access corridor would be cleared to make way for the dredge pipelines. The pipeline will be jack and bored below a roadway and placed within existing canals to reduce impacts to private property. Retention Dikes would also be constructed in order to contain the dredged material. Dredged material would be placed to the northeast portion of the disposal are before moving toward the southwest.
- River Mile 32.0 to 29.5 – Assumes a 27-inch hydraulic cutterhead dredge crew would be used. All of the dredged material in this section of channel would be disposed of in Wetland Site 7E, where dike construction would be required. A pipeline access corridor would be cleared to make way for the dredge pipelines. The pipeline will be jack and bored below a roadway and placed within existing canals to reduce impacts to private property. Retention dikes would also be constructed in order to contain the dredged material. Material would first be placed to the northeast and proceed to the southwest.
- River Mile 29.5 to 28.0 – Assumes a 27-inch hydraulic cutterhead dredge crew would be used. The dredged material in this reach would be pumped to Wetland Sites 12 and 12B. Material placement would require dike construction in both sites. An access corridor would need to be constructed prior to placement of material. Material would be placed on the eastern side of the disposal area first and then proceed west.
- River Mile 28.0 to 26.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. The dredged material would be placed within Wetland Site A-07-A. This site would require dike construction to accommodate disposal. An access corridor would need to be constructed in order to place the dredged materials at this site. Material would be placed from the west side first and proceed to the eastern portion of the disposal area.
- River Mile 26.0 to 24.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. The dredged material would be placed unconfined within Wetland Sites A-07-A and 14A. Dike construction would be required. An access corridor would need to be constructed in order to place the dredged materials at this site. Material would be placed from the west side first and proceed to the eastern portion of the disposal areas.

- River Mile 24.0 to 22.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. The dredged material would be placed semi-confined within Wetland Sites 15 and 15A. Retention dikes and an access corridor would need to be constructed. The material should be placed in the northeast corner of the site first, and proceed towards the southwest.
- River Mile 22.0 to 20.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. Dredged material would be placed unconfined in Wetland Site 16, but containment dikes would be required within Wetland Site 15A, which is along the west bank of the channel. Material would be placed from the west to the east in both sites.
- River Mile 20.0 to 18.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. An access corridor would be required. All dredged material is assumed to be placed within Wetland Sites 19C and 19D. Containment dikes would be required for disposal in both sites. The discharge pipe would be placed at the outer extent of the disposal sites, furthest from the HNC.
- River Mile 18.0 to 16.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. Dredged material would be pumped to Wetland Sites 20C and 21. Material would be placed within confined disposal cells. A pipeline access corridor would be constructed. The disposal pipeline would first be placed to the western extent of both disposal sites and move east as required.
- River Mile 16.0 to 13.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. Material would be pumped to Wetland Site 21. The discharge pipe would be initially placed in the southwest portion of the disposal area. Containment dikes would be required.
- River Mile 13.0 to 11.5 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. Dredged material would be placed within Wetland Sites 21 and 24 on the west bank of the channel. Pipeline access corridors would need to be cleared. Initial build-up of material should occur in the western side of the disposal areas. Construction of containment dikes would be required.
- River Mile 11.5 to 10.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. All dredged material would be placed unconfined to the east of the channel as single point discharges.
- River Mile 10.0 to 6.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. Dredged material would be placed unconfined to the east of the channel as single point discharges.
- River Mile 6.0 to 5.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. Dredged material would be placed unconfined to the east of the channel as single point discharges.

- River Mile 5.0 to 2.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. Dredged material would be placed unconfined to the east of the channel as single point discharges.
- River Mile 2.0 to 1.5 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. Dredged material would be placed unconfined to the east of the channel as single point discharges.
- River Mile 1.5 to 0.0 - Assumes a 27-inch hydraulic cutterhead dredge crew would be used. The dredged material would be placed unconfined to the east of the channel as single point discharges.
- River Mile 0.0 to -3.5 - Assumes a 30-inch hydraulic cutterhead dredge crew would be used. The dredged material would be placed unconfined to the east of the channel as single point discharges.

Stone Placement – The stone is assumed to be purchased in the Louisiana/Arkansas region, and barged to the project site. A flotation channel would be excavated from an assumed existing depth of -2-ft to -6-ft, which would allow enough draft depth for light loaded barges during placement of the stone. The flotation channel would be excavated approximately 80-ft wide and the material would be placed on the bank beyond the stone placement limits. The flotation channel would be excavated with a barge mounted dragline crane crew working two shifts of 12-hours per day. Geotextile fabric would be placed prior to the stone. The stone barges would be light loaded prior to entering the flotation channel. The placement of the stone would be accomplished using a barge mounted drag line crane crews working one shift of 12-hours per day.

- River Mile 27.6 to 27.4 – Existing stone would be refurbished along the west bank of the channel as foreshore protection. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 26.4 to 25.9 – Stone would be placed on the west bank of the channel as foreshore protection. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 25.9 to 24.1 – Stone would be placed on the west bank of the channel as foreshore protection. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 23.7 to 22.4 – Stone would be placed on the east bank of the channel as foreshore protection. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 22.2 to 22.1 – Stone would be placed on the east bank of the channel as foreshore protection. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 19.2 to 17.5 - Stone would be placed on the east bank of the channel as foreshore protection. The height of the stone dike would be placed to 5.0-feet NAVD88.

- River Mile 19.1 to 18.4 - Stone would be placed on the west bank of the channel as foreshore protection. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 18.3 to 17.8 - Stone would be placed on the west bank of the channel as foreshore protection. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 17.7 to 16.7 - Stone would be placed on the west bank of the channel. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 16.9 to 13.3 - Stone would be placed on the east bank of the channel as foreshore protection. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 15.6 to 14.0 - Stone would be placed on the west bank of the channel as rock retention. The height of the stone dike would be placed to 6.0-feet NAVD88.
- River Mile 13.2 to 11.9 - Stone would be placed on the west bank of the channel. The height of the stone dike would be placed to 5.0-feet NAVD88.
- River Mile 12.7 to 12.3 - Stone would be placed on the east bank of the channel. The height of the stone dike would be placed to 5.0-feet NAVD88

E. Unusual Conditions: Unusual conditions that might influence construction costs include unusually wet weather conditions or hurricanes.

F. Unique Construction Techniques: The pipeline relocations would be performed by directional drilling. The retention dike construction would be performed by marsh cranes crews. The dredging would be performed by hydraulic cutterhead dredges with pipelines to the disposal sites. The stone bank protection would be placed by barge mounted cranes.

G. Equipment/Labor Availability and Distance Traveled: All equipment is assumed to be available in the greater Gulf Coast region. Some labor may have to come from other parts of the country.

6. Environmental Concerns

Construction activities would likely increase turbidity in the canal. There is a potential for construction equipment to leak or spill contaminates into the waterway. Costs associated with these potential environmental concerns were not included in this estimate.

7. Effective Dates for Labor, Equipment and Material Pricing

The labor, equipment, and material pricing were developed using the MCACES 2012 English Unit Cost Library, 2015 National Labor Library, and the 2014 Equipment Library (Region 8) for the base cost estimates. The index pricing data has been prepared in October 2016 dollars. The labor rates from the MCACES 2015 National Labor Library were compared with the current Davis-Bacon Wage rates (General Decision County Index LA20160011, and LA20160016) and actual wage rates (see Appendix D). The actual wage rates are higher than Davis-Bacon Wage Rates for the heavy dredging. The Davis-Bacon Wage Rates were used in the estimate for typical

construction along with the actual wage rates for the heavy dredging. The higher rates along with the overtime would likely be needed to attract labor to this market.
The base cost estimate has been updated with a materials sales tax of 6.05% and current quoted fuel prices of $2.25/gal for off-road diesel, $2.65/gal for on-road diesel and $2.10/gal for gasoline in the Houma, LA area.

8. Estimated Production Rates

The construction of this project would require many types of specialty crews and equipment due to the unique construction techniques required for over-water work. Production rates were developed through the USACE Cost Engineering Dredge Estimating Program (CEDEP), by CEMVN.

9. CEDEP

Mobilization and Demobilization costs as well as unit costs for hydraulic dredging have been estimated with the Corps CEDEP program without including overhead and profit. These direct costs were entered into MCACES where overhead and profit have been applied.

10. Project Markups

A. Escalation: Escalation has been calculated in two steps. Price levels have first been escalated from effective price levels of the base cost estimate of January 2012 to an effective price level for October 2017 to match the authorized budget year (FY2018). Price levels are then escalated again from the budget year to an effective price level for year and quarter of mid-point of construction for each contract. The escalation cost factors for CWBS Feature Codes 02-Relocations and 09-Channels were taken from EM 1110-2-1304 Civil Works Construction Cost Index System (tables revised 30 September, 2015).

B. Contingency: Contingencies represent allowances to cover unknowns, uncertainties and/or unanticipated conditions that are not possible to adequately evaluate from the data on hand at the time the cost estimate is prepared but must be represented by a sufficient cost to cover the identified risks. An overall contingency of 21% has been used for construction to cover design changes and uncertainties in quantities and unit prices. The 21% contingency was determined through a Cost and Schedule Risk Analysis (CSRA - Appendix N). The CSRA provided a contingency cost of 22% for Operations and Maintenance.

11. Functional Costs

Functional costs associated with this work were estimated as follows:

A. 01 Account – Lands and Damages: Costs for this account were developed by the Louisiana Department of Transportation and Development. These costs include $12,843,000 for real estate which includes easements required for mitigation and a 25% contingency cost. Additional costs of $824,000 for BLH mitigation bank and $93,000 for cypress mitigation bank were applied to the initial deepening contract and are not included in the Lands and Damages account. A cost of $9,000 for oyster lease mitigation is included. The Lands and Damages costs are assumed to occur one time in the first contract year of the project with no additional costs incurred over the 50-year design life.

B. 30 Account - Planning, Engineering, and Design: Costs for this account were estimated at 15% of the construction cost. This account covers the preparation of Plans Specifications and Estimate for construction.

C. 31 Account - Construction Management: Costs for this account were estimated at 10% of the construction cost. This account covers construction management during the construction contract.

12. Construction Cost Estimate

The construction cost estimate was developed using MCACES 2nd Generation (MII) estimating software in accordance with guidance contained in ER 1110-2-1302, Civil Works Cost Engineering. The MCACES construction cost estimate does not include project markups or functional costs. See Appendix F for the MCACES construction cost estimate output report.

13. Operation and Maintenance Cost Estimate

The operation and maintenance cost estimate was prepared for anticipated maintenance dredging and stone placement requirements. See Appendix G for the MCACES operation and maintenance cost estimate output report.

Maintenance Dredging:

- River Mile 36.3 to 34.0 – Maintenance dredging would start five years after the construction of this reach has been completed. The hydraulic dredging would occur every five years. The dredged material would be disposed of in confined upland Sites 1 and 3.
- River Mile 34.0 to 32.0 – Maintenance dredging would occur every ten years after the initial construction is completed. The hydraulically dredged material would be placed within Wetland Site 7E. Approximately 13,800-LF of dikes would also need to be re-furbished every ten years as well. A 100-FT wide pipeline access corridor would be required for the disposal of dredged material.
- River Mile 32.0 to 29.5 - Maintenance dredging would occur every ten years after the initial construction is completed. The hydraulically dredged material would be placed within semi-confined Wetland Site 7E. Approximately 13,800-LF of dikes would also need to be re-furbished every ten years as well. A 100-FT wide pipeline access corridor would be required for the disposal of dredged material.
- River Mile 29.5 to 28.0 – Maintenance dredging would occur every ten years after the initial construction phase is completed. The hydraulically dredged material would be disposed of semi-confined within Wetland Sites 12 and 12B. A 100-FT wide pipeline access corridor would be required for the disposal of dredged material. Approximately 1,800-LF (Site 12) and 1,600-LF (Site 12B) of dikes would need to be re-furbished every ten years as well.
- River Mile 28.0 to 26.0 - Maintenance dredging would occur every ten years after the initial construction phase is completed. The hydraulically dredged material would be disposed of semi-confined within Wetland Site A-07-A. A 100-FT wide pipeline access corridor would be required. Approximately 9,300-LF of dikes would also need to be re-furbished every ten years as well.

- River Mile 26.0 to 24.0 - Maintenance dredging would occur every ten years after the initial construction phase is completed. The hydraulically dredged material would be disposed of semi-confined within Wetland Site 14A. A 100-FT wide pipeline access corridor would be required. Approximately 13,00-LF of dikes would also need to be re-furbished every ten years as well.
- River Mile 24.0 to 22.0 - Maintenance dredging would start five years after the construction of this reach has been completed. The hydraulic dredging would occur every five years after the initial maintenance year. The dredged material would be disposed of in semi-confined Wetland Sites 15 and 15A. Ten years after initial construction, 2,450-LF (Site 15) and 4,800-LF (Site 15A) of earthen dikes would be re-furbished, and this would continue every ten years after. A 100-FT wide pipeline access corridor would be required for the disposal of the material each year the reach is dredged.
- River Mile 22.0 to 20.0 - Maintenance dredging would start five years after the construction of this reach has been completed. The hydraulic dredging would occur every five years after the first year. The dredged material would be disposed of unconfined within Wetland Site 16 and confined within Wetland Site 15A. Ten years after initial construction, 4,800-LF of earthen dikes would be re-furbished within Site 15A, and this would continue every ten years after. A 100-FT wide pipeline access corridor would be required for the disposal of the material each year the reach is dredged.
- River Mile 20.0 to 18.0 - Maintenance dredging would occur every ten years after the initial construction phase is completed. The hydraulically dredged material would be disposed of confined within Wetland Sites 19C and 19D. A 100-FT wide pipeline access corridor would be required. Approximately 1,300-LF of dikes would need to be re-furbished every ten years for each disposal site.
- River Mile 18.0 to 16.0 - Maintenance dredging would occur every ten years after the initial construction phase for this reach is completed. The hydraulically dredged material would be disposed of confined within Wetland Sites 20C and 21. A 100-FT wide pipeline access corridor would be required. Ten years after initial construction, 2,000-LF (Site 20C) and 3,850-LF (Site 21) of earthen dikes would be re-furbished, and this would continue every ten years after.
- River Mile 16.0 to 13.0 - Maintenance dredging would occur every ten years after the initial construction phase is completed. The hydraulically dredged material would be disposed of unconfined within Wetland Site 21. A 100-FT wide pipeline access corridor would be required. Approximately 3,850-LF of dikes would also need to be re-furbished every ten years as well.
- River Mile 13.0 to 11.0 - Maintenance dredging would occur every ten years after the initial construction phase for this reach is completed. The hydraulically dredged material would be disposed of within Wetland Sites 24 and 21. A 100-FT wide pipeline access corridor would be required in order to dispose of the dredged material. Ten years after initial construction, 4,100-LF (Site 24) and 3,850-LF (Site 21) of earthen dikes would be re-furbished, and this would continue every ten years after.
- River Mile 11.0 to 8.0 - Maintenance dredging would occur every two years after the initial construction is completed. The hydraulically dredged material would be disposed

of via Single Point Discharge (SPD) at site SPD 8.8, a minimum of 1,000 feet west of the channel.

- River Mile 8.0 to 6.0 - Maintenance dredging would occur every two years after the initial construction is completed. The hydraulically dredged material would be disposed of via Single Point Discharge at site SPD 7, a minimum of 1,000 feet west of the channel.
- River Mile 6.0 to 4.0 - Maintenance dredging would occur every two years after the initial construction is completed. The hydraulically dredged material would be disposed of via Single Point Discharge at site SPD 5, a minimum of 1,000 feet west of the channel.
- River Mile 4.0 to 2.0 - Maintenance dredging would occur every two years after the initial construction is completed. The hydraulically dredged material would be disposed of via Single Point Discharge at site SPD 3, a minimum of 1,000 feet west of the channel.
- River Mile 2.0 to 0.0 - Maintenance dredging would occur every two years after the initial construction is completed. The hydraulically dredged material would be disposed of via Single Point Discharge at site SPD 1, a minimum of 1,000 feet west of the channel.
- River Mile 0.0 to -3.7 - Maintenance dredging would occur every two years after the initial construction is completed. The hydraulically dredged material would be disposed of via Single Point Discharge at sites SPD -1.7 and -2.5, a minimum of 1,000 feet west of the channel.

Maintenance Stone Placement:

- River Mile 27.6 to 27.4 – Maintenance of the stone dikes would be required every ten years after initial construction has ended. 1,900-TON of stone would be placed on the west bank of the canal each year maintenance is required.
- River Mile 26.4 to 25.9 – Maintenance of the stone dikes would be required every ten years after initial construction has ended. 5,320-TON of stone would be placed on the west bank of the canal each year maintenance is required.
- River Mile 25.9 to 24.1 – Maintenance of the stone dikes would be required every ten years after initial construction has ended. 21,300-TON of stone would be placed on the west bank of the canal each year maintenance is required.
- River Mile 23.7 to 22.4 – Maintenance of the stone dikes would be required every ten years after initial construction has ended. 11,820-TON of stone would be placed on the east bank of the canal each year maintenance is required.
- River Mile 22.2 to 22.1 – Maintenance of the stone dikes would be required every ten years after initial construction has ended. 1,960-TON of stone would be placed on the east bank of the canal each year maintenance is required.
- River Mile 19.2 to 17.5 - Maintenance of the stone dikes would be required every ten years after initial construction has ended. 19,900-TON of stone would be placed on the east bank of the canal each year maintenance is required.

- River Mile 19.1 to 17.8 - Maintenance of the stone dikes would be required every ten years after initial construction has ended. 3,640-TON of stone would be placed on the west bank of the canal each year maintenance is required.
- River Mile 17.7 to 16.7 - Maintenance of the stone dikes would be required every ten years after initial construction has ended. 13,490-TON of stone would be placed on the west bank of the canal each year maintenance is required.
- River Mile 16.9 to 13.3 - Maintenance of the stone dikes would be required every ten years after initial construction has ended. 42,600-TON of stone would be placed on the east bank of the canal each year maintenance is required.
- River Mile 15.6 to 14.0 - Maintenance of the stone dikes would be required every ten years after initial construction has ended. 18,900-TON of stone would be placed on the west bank of the canal each year maintenance is required.
- River Mile 13.2 to 11.9 - Maintenance of the stone dikes would be required every ten years after initial construction has ended. 15,180-TON of stone would be placed on the west bank of the canal each year maintenance is required.
- River Mile 12.7 to 12.3 - Maintenance of the stone dikes would be required every ten years after initial construction has ended. 5,420-TON of stone would be placed on the east bank of the canal each year maintenance is required.

The operation and maintenance cost estimate was developed using MII estimating software in accordance with guidance contained in ER 1110-2-1302, Civil Works Cost Engineering. The MCACES operation and maintenance cost estimate does not include project markups or functional costs. See Appendix F for the MCACES output report.

14. Total Project Cost Summary

Two separate Total Project Cost Summaries (TPCS) have been developed, one for the construction cost estimate and one for the operation and maintenance cost estimate. These TPCSs were prepared using a Cost Dx provided excel spreadsheet which incorporates the construction cost estimates, project mark-ups, and the functional costs.

15. References

U.S. Army Corps of Engineers, 1993, *Engineering and Design Cost Engineering Policy and General Requirements, Engineering Regulation 1110-1-1300,* Department of the Army, Washington D.C., 26 March 1993.

U.S. Army Corps of Engineers, 1999, *Engineering and Design For Civil Works Projects, Engineering Regulation 1110-2-1150,* Department of the Army, Washington D.C., 31 August 1999.

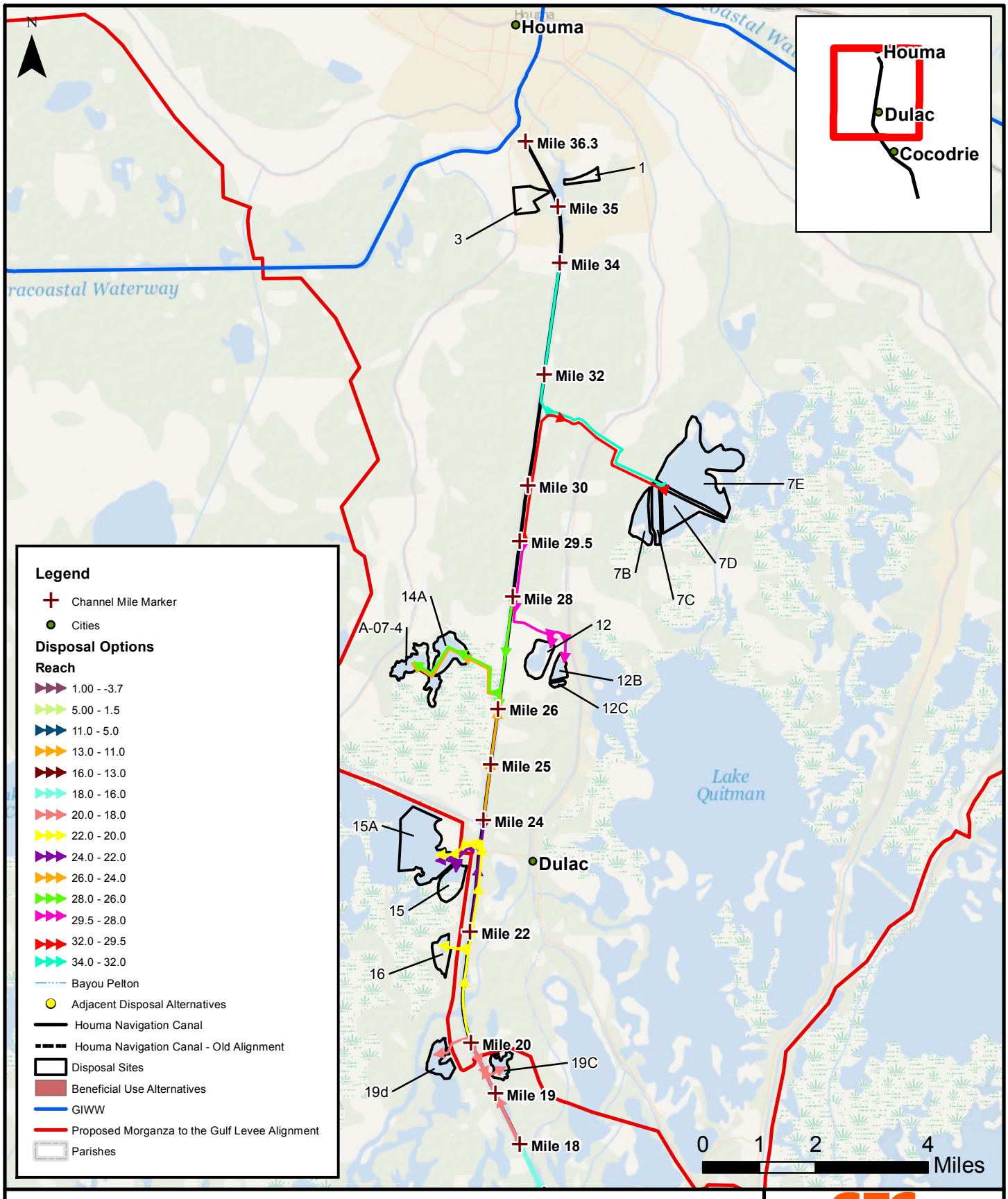
U.S. Army Corps of Engineers, 2008a, *Civil Works Cost Engineering, Engineering Regulation 1110-2-1302,* Department of the Army, Washington D.C., 15 September 2008.

U.S. Army Corps of Engineers, 2008b, *Construction Cost Estimating Guide For Civil Works, Engineering Technical Letter 1110-2-573,* Department of the Army, Washington D.C., 30 September 2008.

U.S. Army Corps of Engineers, 2009, *Civil Works Construction Cost Index System, Engineering Manual 1110-2-1304,* Department of the Army, Washington D.C., 31 March 2009.

APPENDIX A

Site Plan

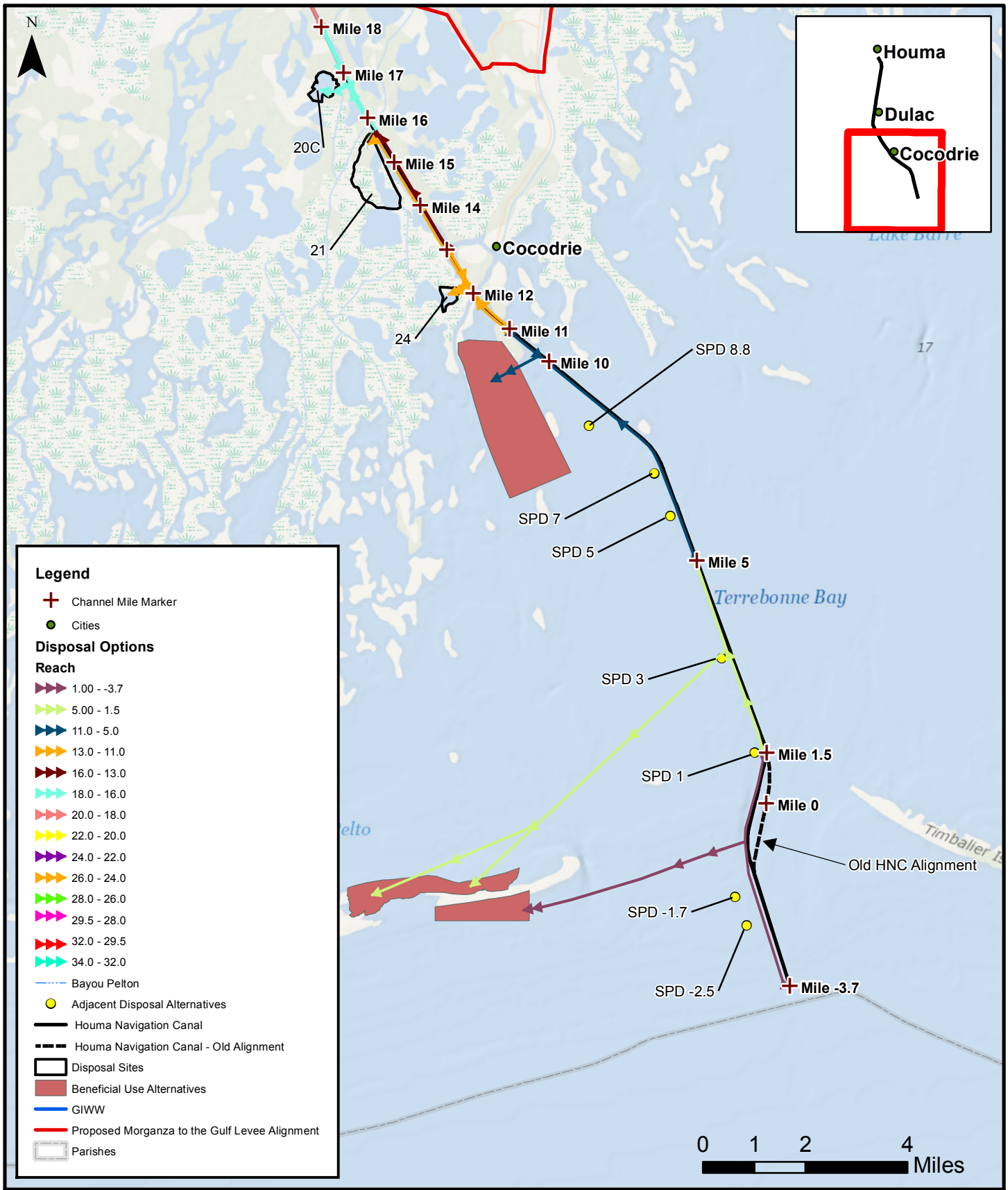


DISPOSAL AREAS
North End
Houma Navigation Canal Deepening

ERSI Ocean Map

GEC

Date: December 2014
Scale:1:150,000
Source: ESRI/GEC
Map ID: 278500218-3026



DISPOSAL AREAS
South End
Houma Navigation Canal Deepening

ERSI Ocean Map

GEC

Date: December 2014
Scale:1:165,000
Source: ESRI/GEC
Map ID: 278500218-3026

APPENDIX B

Overall Quantities

		Channel Reach																														
		36.3 -34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	23.7 - 22.4	22.2 - 22.1	22.0 - 20.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	17.7 - 16.7	16.9 - 13.3	16.0 - 13.0	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**	**Construction**																														**Total**
Mobilization/Demobilization																																
Prelay Submerged Pipeline																																
Prelay Submerged Pipeline	LF	3,000												2,000												1,500		1,500			1,500	9,500
Submergeed Pipeline Standby Costs	DAY	2												1												1		1			1	6
Warning Floats	EA	1												1												1		1			1	5
Prelay Shore Pipeline																																
Prelay Shore Pipeline	LF	1,500												2,500																		4,000
Shore Pipeline Standby Costs	DAY	3												5																		8
Deck Barge	EA	6												5																		11
Pickup Submerged Pipeline																																
Pickup Submerged Pipeline	LF	9,000												9,000												9,000		9,000			9,000	45,000
Submerged Pipeline Stanby Cost	DAY	6												6												6		6			6	30
Warning Floats	EA	1												1												1		1			1	5
Pickup Shore Pipeline																																
Pickup Shore Pipeline	LF	1,000												3,000																		4,000
Shore Pipeline Standby Costs	DAY	2												6																		8
Deck Barge	DAY	4												6																		10
Tug Rental	HR	979												1,306												979		979			979	5,222
Tug Rental	HR	326												653												326		326			326	1,957
Dredge Pipeline Crew	DAY	8												8												8		8			8	39
Crew Boat	HR	94												94												94		94			94	468
Survey Boat	HR	94												94												94		94			94	468
Quarter Boat	DAY	8												8												8		8			8	39
Trailering/Delivery of Land Based Equipment	EA	1												1												1		1			1	5
Rock/Fabrick/Flotation Crew	DAY	10												20																		30
Marsh Cranes	EA	2												2																		4
Welded Pipeline (7E)																																
Welding Crew																																
2 Crew Welding Team	HR	72																														72
Trailering per Load	EA	4																														4
Delivering/Prelaying/Removing Shore Pipeline																																
Prelay/Pickup Shore Pipe	LF	2,500																														2,500
Trailering per Load	EA	13																														13
Truck Loading/Unloading	EA	50																														50
Shore Pipeline Stanby Cost	DAY	2																														2
Welding Shore Pipeline																																
2 Crew Welding Team	LF	2,500																														2,500
Shore Pipeline Stanby Cost	DAY	3																														3
Cutting Shore Pipeline																																
1 Welder Crew	LF	2,500																														2,500
Shore Pipeline Stanby Cost	DAY	1																														1
Shore Pipeline Crew																																
Shore Crew	DAY	8																														8
Trailering per Load	EA	4																														4
Jack and Bore Under HWY 57																																
Horizontal Boring	LF		300																													300
Earthwork	CY		884																													884
Land Surveying	HR		20																													20
Pipeline Dredging																																
Marine Survey	HR	110	40		110									110												110		110			110	700
Dredging Monthly Cost	MO	2.8	1.1		2.8									2.6												1.5		1.5			2.6	15
Excavation and Disposal - 27 in. Discharge	CY	325,000	390,000			1,040,000								1,150,000												1,894,500		1,665,000			1,100,000	7,564,500
Disposal Areas																																
Dike Construction	CY		91,356		10,592		147,625				16,219								25,487			27,142										318,421
Land Surveying	HR		83		10		134				15								23			25										289
Marsh Crane Crew	HR		337		39		545				60								116			123										1,220
Quarter Bardge	DAY		28		3		45				5								10			10										102
Bank Stabilization																																

		Channel Reach																													
		36.3 -34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	23.7 - 22.4	22.2 - 22.1	22.0 - 20.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	17.7 - 16.7	16.9 - 13.3	16.0 - 13.0	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**	**Construction**																													**Total**
Foreshore Protection																															
Stone Placement/Material/Delivery	TON						1,900	26,600		21,300		59,100	9,800			99,500	18,200		67,400	213,000		94,500	75,900		27,100							714,300
Geotextile																															
Fabric Placement/Material/Delivery	SY							12,800				28,500	4,700			47,900	83,308		32,500	102,600		45,500	36,600		13,000							407,408
Flotation Channel																															
Excavation	BCY						21,042	47,428		161,990		109,218	12,191			135,604	29,893		91,516	320,640		144,455	109,218		29,893							1,213,088
Total																															

			Channel Reach																																
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																																**Total**
			Contract 1																																
Mobilization/Demobilization																																			
Prelay Submerged Pipeline																																			
Prelay Submerged Pipeline	LF	7,800																																	7,800
Submergeed Pipeline Standby Costs	DAY	5.2																																	5
Warning Floats	EA	1																																	1
Prelay Shore Pipeline																																			
Prelay Shore Pipeline	LF	1,500																																	1,500
Shore Pipeline Standby Costs	DAY	3.0																																	3
Deck Barge	EA	3																																	3
Pickup Submerged Pipeline																																			
Pickup Submerged Pipeline	LF	9,000																																	9,000
Submerged Pipeline Stanby Cost	DAY	6.0																																	6
Warning Floats	EA	1																																	1
Pickup Shore Pipeline																																			
Pickup Shore Pipeline	LF	2,000																																	2,000
Shore Pipeline Standby Costs	DAY	4.0																																	4
Deck Barge	DAY	8.0																																	8
Tug Rental	HR	1,306																																	1,306
Tug Rental	HR	653																																	653
Dredge Pipeline Crew	DAY	7.8																																	8
Crew Boat (Hourly Contractor Owned)	HR	93.6																																	94
Crew Boat (24-HR Fully Operated Rental)	HR	374.4																																	374
Survey Boat	HR	93.6																																	94
Quarter Boat	DAY	7.8																																	8
Trailering/Delivery of Land Based Equipment	EA	1																																	1
Rock/Fabrick/Flotation Crew	DAY																																		
Marsh Cranes (Fully Operated Rental)	HR	120																																	120
Marsh Cranes (Delivery Fee)	EA	2																																	2
Pipeline Dredging																																			
Marine Survey	HR			6.9									6.0	6.0															9.0	6.0	6.0	6.0	6.0		51.9
Dredging Monthly Cost	MO			0.33									0.29	0.29															0.46	0.31	0.31	0.31	0.31		2.6
Excavation and Disposal - 27 in. Discharge	CY			109,600									109,600	109,600															374,000	257,900	267,400	267,400	267,400		1,762,900
Disposal Areas																																			
Dike Construction	CY												16,219																						16,219
Land Surveying	HR												14.7																						15
Marsh Crane Crew	HR																																		
Quarter Bardge	DAY																																		
Total																																			
			Contract 2																																
Mobilization/Demobilization																																			
Prelay Submerged Pipeline																																			
Prelay Submerged Pipeline	LF																																	1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																	1.0	1
Warning Floats	EA																																	1	1
Pickup Submerged Pipeline																																			
Pickup Submerged Pipeline	LF																																	5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																	3.3	3
Warning Floats	EA																																	1	1
Tug Rental	HR																																	979.2	979
Tug Rental	HR																																	326.4	326
Dredge Pipeline Crew	DAY																																	7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																		
Crew Boat (24-HR Fully Operated Rental)	HR																																	374.4	374
Survey Boat	HR																																	93.6	94
Quarter Boat	DAY																																	7.8	8
Trailering/Delivery of Land Based Equipment	EA																																	1	1
Rock/Fabrick/Flotation Crew	DAY																																		
Marsh Cranes (Fully Operated Rental)	HR																																		
Marsh Cranes (Delivery Fee)	EA																																		
Pipeline Dredging																																			
Marine Survey	HR																																	110.0	110
Dredging Monthly Cost	MO																																	1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																	580,000	580,000
Total																																			
			Contract 3																																
Mobilization/Demobilization																																			
Prelay Submerged Pipeline																																			
Prelay Submerged Pipeline	LF																												1,500						1,500
Submergeed Pipeline Standby Costs	DAY																												1.0						1

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Warning Floats	EA																												1					1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																												9,000					9,000
Submerged Pipeline Stanby Cost	DAY																												6.0					6
Warning Floats	EA																												1					1
Tug Rental	HR																												979.2					979
Tug Rental	HR																												326.4					326
Dredge Pipeline Crew	DAY																												7.8					8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																												374.4					374
Survey Boat	HR																												93.6					94
Quarter Boat	DAY																												7.8					8
Trailering/Delivery of Land Based Equipment	EA																												1					1
Pipeline Dredging																																		
Marine Survey	HR																											9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																											0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																											374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																		
			Contract 4																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 5																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																												1,500					1,500
Submergeed Pipeline Standby Costs	DAY																												1.0					1
Warning Floats	EA																												1					1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																												9,000					9,000
Submerged Pipeline Stanby Cost	DAY																												6.0					6
Warning Floats	EA																												1					1
Tug Rental	HR																												979.2					979
Tug Rental	HR																												326.4					326
Dredge Pipeline Crew	DAY																												7.8					8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																												374.4					374
Survey Boat	HR																												93.6					94
Quarter Boat	DAY																												7.8					8
Trailering/Delivery of Land Based Equipment	EA																												1					1
Pipeline Dredging																																		
Marine Survey	HR																											9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																											0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																											374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																		
			Contract 6																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF		3,000																														3,000	6,000
Submergeed Pipeline Standby Costs	DAY		2.0																														2.0	4
Warning Floats	EA		1																														1	2

			Channel Reach																																
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																																**Total**
Prelay Shore Pipeline																																			
Prelay Shore Pipeline	LF		1,500																															1,500	3,000
Shore Pipeline Standby Costs	DAY		3.0																															3.0	6
Deck Barge	EA		3																															3	6
Pickup Submerged Pipeline																																			
Pickup Submerged Pipeline	LF		9,000																															9,000	18,000
Submerged Pipeline Stanby Cost	DAY		6.0																															6.0	12
Warning Floats	EA		1																															1	2
Pickup Shore Pipeline																																			
Pickup Shore Pipeline	LF		1,000																															1,000	2,000
Shore Pipeline Standby Costs	DAY		2.0																															2.0	4
Deck Barge	DAY		2.0																															2.0	4
Tug Rental	HR		979.2																															979.2	1,958
Tug Rental	HR		326.4																															326.4	653
Dredge Pipeline Crew (Monthly)	DAY		7.8																															7.8	16
Shore Crew for Pipeline Construction/Deconstruction	DAY		7.8																															187.2	195
Crew Boat (Hourly Contractor Owned)	HR		93.6																																94
Crew Boat (24-HR Fully Operated Rental)	HR																																		
Survey Boat	HR		93.6																															93.6	187
Quarter Boat	DAY		7.8																															7.8	16
Trailering/Delivery of Land Based Equipment	EA		1																															1	2
Rock/Fabrick/Flotation Crew	DAY		10.0																																10
Marsh Cranes (Fully Operated Rental)	HR		120																																120
Marsh Cranes (Delivery Fee)	EA		2																																2
Welded Pipeline (7E)																																			
Welding Crew																																			
2 Crew Welding Team	HR		72																																72
Trailering per Load	EA		4																																4
Delivering/Prelaying/Removing Shore Pipeline																																			
Prelay/Pickup Shore Pipe	LF		2,500																																2,500
Trailering per Load	EA		13																																13
Truck Loading/Unloading	EA		50																																50
Shore Pipeline Stanby Cost	DAY		2.0																																2
Welding Shore Pipeline																																			
2 Crew Welding Team	LF		2,500																																2,500
Shore Pipeline Stanby Cost	DAY		2.8																																3
Cutting Shore Pipeline																																			
1 Welder Crew	LF		2,500																																2,500
Shore Pipeline Stanby Cost	DAY		1.4																																1
Shore Pipeline Crew																																			
Shore Crew	DAY		7.8																																8
Trailering per Load	EA		4																																4
Jack and Bore Under HWY 57																																			
Horizontal Boring	LF		300																																300
Earthwork	CY		40																																40
Land Surveying	HR		20																																20
Pipeline Dredging																																			
Marine Survey	HR			6.9	6.9	6.9	6.9	6.9			6.9		6.0					6.0																110.0	163
Dredging Monthly Cost	MO			0.33	0.44	0.45	0.36	0.41			0.41		0.29					0.31																1.58	5
Excavation and Disposal - 27 in. Discharge	CY			109,600	219,600	165,800	219,600	219,600			219,600		109,600					109,600																580,000	1,953,000
Disposal Areas																																			
Dike Construction	CY				91,356		10,592	61,566			86,060		16,219																							265,793
Land Surveying	HR				83.1		9.6	56.0			78.2		14.7																							242
Marsh Crane Crew	HR				337.1		39.1	227.2			317.6		59.9																							981
Quarter Bardge	DAY				28.1		3.3	18.9			26.5		5.0																							82
Bank Stabilization																																			
Foreshore Protection																																			
Stone Placement/Material/Delivery	TON								1,900	5,320		21,300			11,820	1,960																			42,300
Geotextile																																			
Fabric Placement/Material/Delivery	SY																																		
Flotation Channel																																			
Excavation	BCY								21,042	47,428		161,990			109,218	12,191																			351,869
Total																																			
			Contract 7																																
Mobilization/Demobilization																																			
Prelay Submerged Pipeline																																			
Prelay Submerged Pipeline	LF																3,000												1,500					4,500	
Submergeed Pipeline Standby Costs	DAY																2.0												1.0					3	
Warning Floats	EA																1												1					2	
Prelay Shore Pipeline																																			

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Prelay Shore Pipeline	LF																3,000																	3,000
Shore Pipeline Standby Costs	DAY																6.0																	6
Deck Barge	EA																6																	6
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																6,000												9,000					15,000
Submerged Pipeline Stanby Cost	DAY																4.0												6.0					10
Warning Floats	EA																1												1					2
Pickup Shore Pipeline																																		
Pickup Shore Pipeline	LF																2,000																	2,000
Shore Pipeline Standby Costs	DAY																4.0																	4
Deck Barge	DAY																4.0																	4
Tug Rental	HR																979.2												979.2					1,958
Tug Rental	HR																326.4												326.4					653
Dredge Pipeline Crew	DAY																7.8												7.8					16
Crew Boat (Hourly Contractor Owned)	HR																93.6																	94
Crew Boat (24-HR Fully Operated Rental)	HR																374.4												374.4					749
Survey Boat	HR																93.6												93.6					187
Quarter Boat	DAY																7.8												7.8					16
Trailering/Delivery of Land Based Equipment	EA																1.0												1					2
Rock/Fabrick/Flotation Crew	DAY																10																	10
Marsh Cranes (Fully Operated Rental)	HR																120.0																	120
Marsh Cranes (Delivery Fee)	EA																2																	2
Pipeline Dredging																																		
Marine Survey	HR																	6.9			6.9	6.9					6.9		9.0	6.0	6.0	6.0	6.0		61
Dredging Monthly Cost	MO																	0.34			0.34	0.55					0.34		0.46	0.31	0.31	0.31	0.31		3
Excavation and Disposal - 27 in. Discharge	CY																	219,600			219,600	331,400					254,500		374,000	257,900	267,400	267,400	267,400		2,459,200
Disposal Areas																																		
Dike Construction	CY																	8,606			13,240	25,487					27,142								74,475
Land Surveying	HR																	7.8			12.0	23.2					24.7								68
Marsh Crane Crew	HR																	78.2			120.4	231.7					246.7								677
Quarter Bardge	DAY																	6.5			10.0	19.3					20.6								56
Bank Stabilization																																		
Foreshore Protection																																		
Stone Placement/Material/Delivery	TON																		19,900	3,640			13,480	42,600	18,900	15,180		5,420						119,120
Geotextile																																		
Fabric Placement/Material/Delivery	SY																																	
Flotation Channel																																		
Excavation	BCY																		135,604	29,893			91,516	320,640	253,506	89,178		29,893						950,230
Total																																		
			Contract 8																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 9																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																												1,500					1,500
Submergeed Pipeline Standby Costs	DAY																												1.0					1
Warning Floats	EA																												1					1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																												9,000					9,000

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Submerged Pipeline Stanby Cost	DAY																												6.0					6
Warning Floats	EA																												1					1
Tug Rental	HR																												979.2					979
Tug Rental	HR																												326.4					326
Dredge Pipeline Crew	DAY																												7.8					8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																												374.4					374
Survey Boat	HR																												93.6					94
Quarter Boat	DAY																												7.8					8
Trailering/Delivery of Land Based Equipment	EA																												1					1
Pipeline Dredging																																		
Marine Survey	HR																											9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																											0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																											374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																		
			Contract 10																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 11																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF	7,800																																7,800
Submergeed Pipeline Standby Costs	DAY	5.2																																5
Warning Floats	EA	1																																1
Prelay Shore Pipeline																																		
Prelay Shore Pipeline	LF	1,500																																1,500
Shore Pipeline Standby Costs	DAY	3.0																																3
Deck Barge	EA	3																																3
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF	9,000																																9,000
Submerged Pipeline Stanby Cost	DAY	6.0																																6
Warning Floats	EA	1																																1
Pickup Shore Pipeline																																		
Pickup Shore Pipeline	LF	1,000																																1,000
Shore Pipeline Standby Costs	DAY	2.0																																2
Deck Barge	DAY	2.0																																2
Tug Rental	HR	1,306																																1,306
Tug Rental	HR	653																																653
Dredge Pipeline Crew	DAY	7.8																																8
Crew Boat (Hourly Contractor Owned)	HR	93.6																																94
Crew Boat (24-HR Fully Operated Rental)	HR	374.4																																374
Survey Boat	HR	93.6																																94
Quarter Boat	DAY	7.8																																8
Trailering/Delivery of Land Based Equipment	EA	1																																1
Rock/Fabrick/Flotation Crew	DAY																																	
Marsh Cranes (Fully Operated Rental)	HR	120																																120
Marsh Cranes (Delivery Fee)	EA	2																																2
Pipeline Dredging																																		
Marine Survey	HR			6.9									6.0	6.0														9.0	6.0	6.0	6.0	6.0		52
Dredging Monthly Cost	MO			0.33									0.29	0.29														0.46	0.31	0.31	0.31	0.31		3

			Channel Reach																														
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																														**Total**
Excavation and Disposal - 27 in. Discharge	CY			109,600									109,600	109,600														374,000	257,900	267,400	267,400	267,400		1,762,900
Disposal Areas																																	
Dike Construction	CY												16,219																				16,219
Land Surveying	HR												14.7																				15
Marsh Crane Crew	HR																																
Quarter Bardge	DAY																																
Total																																	
			Contract 12																														
Mobilization/Demobilization																																	
Prelay Submerged Pipeline																																	
Prelay Submerged Pipeline	LF																															1,500	1,500
Submergeed Pipeline Standby Costs	DAY																															1.0	1
Warning Floats	EA																															1	1
Pickup Submerged Pipeline																																	
Pickup Submerged Pipeline	LF																															5,000	5,000
Submerged Pipeline Stanby Cost	DAY																															3.3	3
Warning Floats	EA																															1	1
Tug Rental	HR																															979.2	979
Tug Rental	HR																															326.4	326
Dredge Pipeline Crew	DAY																															7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																
Crew Boat (24-HR Fully Operated Rental)	HR																															374.4	374
Survey Boat	HR																															93.6	94
Quarter Boat	DAY																															7.8	8
Trailering/Delivery of Land Based Equipment	EA																															1	1
Pipeline Dredging																																	
Marine Survey	HR																															110.0	110
Dredging Monthly Cost	MO																															1.58	2
Excavation and Disposal - 27 in. Discharge	CY																															580,000	580,000
Total																																	
			Contract 13																														
Mobilization/Demobilization																																	
Prelay Submerged Pipeline																																	
Prelay Submerged Pipeline	LF																											1,500					1,500
Submergeed Pipeline Standby Costs	DAY																											1.0					1
Warning Floats	EA																											1					1
Pickup Submerged Pipeline																																	
Pickup Submerged Pipeline	LF																											9,000					9,000
Submerged Pipeline Stanby Cost	DAY																											6.0					6
Warning Floats	EA																											1					1
Tug Rental	HR																											979.2					979
Tug Rental	HR																											326.4					326
Dredge Pipeline Crew	DAY																											7.8					8
Crew Boat (Hourly Contractor Owned)	HR																																
Crew Boat (24-HR Fully Operated Rental)	HR																											374.4					374
Survey Boat	HR																											93.6					94
Quarter Boat	DAY																											7.8					8
Trailering/Delivery of Land Based Equipment	EA																											1					1
Pipeline Dredging																																	
Marine Survey	HR																												9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																												0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																												374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																	
			Contract 14																														
Mobilization/Demobilization																																	
Prelay Submerged Pipeline																																	
Prelay Submerged Pipeline	LF																															1,500	1,500
Submergeed Pipeline Standby Costs	DAY																															1.0	1
Warning Floats	EA																															1	1
Pickup Submerged Pipeline																																	
Pickup Submerged Pipeline	LF																															5,000	5,000
Submerged Pipeline Stanby Cost	DAY																															3.3	3
Warning Floats	EA																															1	1
Tug Rental	HR																															979.2	979
Tug Rental	HR																															326.4	326
Dredge Pipeline Crew	DAY																															7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																

			Channel Reach																																		
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																																		**Total**
Crew Boat (24-HR Fully Operated Rental)	HR																																				374
Survey Boat	HR																																				94
Quarter Boat	DAY																																				8
Trailering/Delivery of Land Based Equipment	EA																																				1
Pipeline Dredging																																					
Marine Survey	HR																																				110
Dredging Monthly Cost	MO																																				2
Excavation and Disposal - 27 in. Discharge	CY																																				580,000
Total																																					
			Contract 15																																			
Mobilization/Demobilization																																					
Prelay Submerged Pipeline																																					
Prelay Submerged Pipeline	LF																																				1,500
Submergeed Pipeline Standby Costs	DAY																																				1
Warning Floats	EA																																				1
Pickup Submerged Pipeline																																					
Pickup Submerged Pipeline	LF																																				9,000
Submerged Pipeline Stanby Cost	DAY																																				6
Warning Floats	EA																																				1
Tug Rental	HR																																				979
Tug Rental	HR																																				326
Dredge Pipeline Crew	DAY																																				8
Crew Boat (Hourly Contractor Owned)	HR																																				
Crew Boat (24-HR Fully Operated Rental)	HR																																				374
Survey Boat	HR																																				94
Quarter Boat	DAY																																				8
Trailering/Delivery of Land Based Equipment	EA																																				1
Pipeline Dredging																																					
Marine Survey	HR																																				33
Dredging Monthly Cost	MO																																				2
Excavation and Disposal - 27 in. Discharge	CY																																				1,434,100
Total																																					
			Contract 16																																			
Mobilization/Demobilization																																					
Prelay Submerged Pipeline																																					
Prelay Submerged Pipeline	LF		3,000																																	3,000	6,000
Submergeed Pipeline Standby Costs	DAY		2.0																																	2.0	4
Warning Floats	EA		1																																	1	2
Prelay Shore Pipeline																																					
Prelay Shore Pipeline	LF		1,500																																	1,500	3,000
Shore Pipeline Standby Costs	DAY		3.0																																	3.0	6
Deck Barge	EA		3																																	3	6
Pickup Submerged Pipeline																																					
Pickup Submerged Pipeline	LF		9,000																																	9,000	18,000
Submerged Pipeline Stanby Cost	DAY		6.0																																	6.0	12
Warning Floats	EA		1																																	1	2
Pickup Shore Pipeline																																					
Pickup Shore Pipeline	LF		1,000																																	1,000	2,000
Shore Pipeline Standby Costs	DAY		2.0																																	2.0	4
Deck Barge	DAY		2.0																																	2.0	4
Tug Rental	HR		979.2																																	979.2	1,958
Tug Rental	HR		326.4																																	326.4	653
Dredge Pipeline Crew (Monthly)	DAY		7.8																																	7.8	16
Shore Crew for Pipeline Construction/Deconstruction	DAY		7.8																																	187.2	195
Crew Boat (Hourly Contractor Owned)	HR		93.6																																		94
Crew Boat (24-HR Fully Operated Rental)	HR																																				
Survey Boat	HR		93.6																																	93.6	187
Quarter Boat	DAY		7.8																																	7.8	16
Trailering/Delivery of Land Based Equipment	EA		1																																	1	2
Rock/Fabrick/Flotation Crew	DAY		10.0																																		10
Marsh Cranes (Fully Operated Rental)	HR		120																																		120
Marsh Cranes (Delivery Fee)	EA		2																																		2
Welded Pipeline (7E)																																					
Welding Crew																																					
2 Crew Welding Team	HR		72																																		72
Trailering per Load	EA		4																																		4
Delivering/Prelaying/Removing Shore Pipeline																																					
Prelay/Pickup Shore Pipe	LF		2,500																																		2,500
Trailering per Load	EA		13																																		13
Truck Loading/Unloading	EA		50																																		50

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Shore Pipeline Stanby Cost	DAY		2.0																															2
Welding Shore Pipeline																																		
2 Crew Welding Team	LF		2,500																															2,500
Shore Pipeline Stanby Cost	DAY		2.8																															3
Cutting Shore Pipeline																																		
1 Welder Crew	LF		2,500																															2,500
Shore Pipeline Stanby Cost	DAY		1.4																															1
Shore Pipeline Crew																																		
Shore Crew	DAY		7.8																															8
Trailering per Load	EA		4																															4
Jack and Bore Under HWY 57																																		
Horizontal Boring	LF		300																															300
Earthwork	CY		40																															40
Land Surveying	HR		20																															20
Pipeline Dredging																																		
Marine Survey	HR			6.9	6.9	6.9	6.9	6.9			6.9		6.0	6.0				6.0																110.0	169
Dredging Monthly Cost	MO			0.33	0.45	0.45	0.31	0.41			0.40		0.29	0.31				0.31																1.58	5
Excavation and Disposal - 27 in. Discharge	CY			109,600	219,600	165,800	219,600	219,600			219,600		109,600	109,600				109,600																580,000	2,062,600
Disposal Areas																																		
Dike Construction	CY				91,356		11,916	61,566			86,060		16,219																						267,117
Land Surveying	HR				83.1		10.8	56.0			78.2		14.7																						243
Marsh Crane Crew	HR				337.1		44.0	227.2			317.6		59.9																						986
Quarter Bardge	DAY				28.1		3.7	18.9			26.5		5.0																						82
Bank Stabilization																																		
Foreshore Protection																																		
Stone Placement/Material/Delivery	TON								1,900	5,320		21,300			11,820	1,960																		42,300
Geotextile																																		
Fabric Placement/Material/Delivery	SY																																	
Flotation Channel																																		
Excavation	BCY								21,042	47,428		161,990			109,218	12,191																		351,869
Total																																		
			Contract 17																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																3,000												1,500					4,500
Submergeed Pipeline Standby Costs	DAY																2.0												1.0					3
Warning Floats	EA																1												1					2
Prelay Shore Pipeline																																		
Prelay Shore Pipeline	LF																3,000																	3,000
Shore Pipeline Standby Costs	DAY																6.0																	6
Deck Barge	EA																6																	6
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																6,000												9,000					15,000
Submerged Pipeline Stanby Cost	DAY																4.0												6.0					10
Warning Floats	EA																1												1					2
Pickup Shore Pipeline																																		
Pickup Shore Pipeline	LF																2,000																	2,000
Shore Pipeline Standby Costs	DAY																4.0																	4
Deck Barge	DAY																4.0																	4
Tug Rental	HR																979.2												979.2					1,958
Tug Rental	HR																326.4												326.4					653
Dredge Pipeline Crew	DAY																7.8												7.8					16
Crew Boat (Hourly Contractor Owned)	HR																93.6																	94
Crew Boat (24-HR Fully Operated Rental)	HR																374.4												374.4					749
Survey Boat	HR																93.6												93.6					187
Quarter Boat	DAY																7.8												7.8					16
Trailering/Delivery of Land Based Equipment	EA																1.0												1					2
Rock/Fabrick/Flotation Crew	DAY																10																	10
Marsh Cranes (Fully Operated Rental)	HR																120.0																	120
Marsh Cranes (Delivery Fee)	EA																2																	2
Pipeline Dredging																																		
Marine Survey	HR																	6.9			6.9	6.9				6.9		9.0	6.0	6.0	6.0	6.0		61
Dredging Monthly Cost	MO																	0.34			0.34	0.55				0.34		0.46	0.31	0.31	0.31	0.31		3
Excavation and Disposal - 27 in. Discharge	CY																	219,600			219,600	331,400				254,500		374,000	257,900	267,400	267,400	267,400		2,459,200
Disposal Areas																																		
Dike Construction	CY																	8,606			13,240	25,487				27,142								74,475
Land Surveying	HR																	7.8			12.0	23.2				24.7								68
Marsh Crane Crew	HR																	78.2			120.4	231.7				246.7								677
Quarter Bardge	DAY																	6.5			10.0	19.3				20.6								56
Bank Stabilization																																		

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Foreshore Protection																																		
Stone Placement/Material/Delivery	TON																		19,900	3,640			13,480	42,600	18,900	15,180		5,420						119,120
Geotextile																																		
Fabric Placement/Material/Delivery	SY																																	
Flotation Channel																																		
Excavation	BCY																		135,604	29,893			91,516	320,640	253,506	89,178		29,893						950,230
Total																																		
			Contract 18																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 19																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																9,000	9,000
Submerged Pipeline Stanby Cost	DAY																																6.0	6
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Pipeline Dredging																																		
Marine Survey	HR																												9.0	6.0	6.0	6.0	6.0	33
Dredging Monthly Cost	MO																												0.46	0.31	0.31	0.31	0.31	2
Excavation and Disposal - 27 in. Discharge	CY																												374,000	257,900	267,400	267,400	267,400	1,434,100
Total																																		
			Contract 20																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Trailering/Delivery of Land Based Equipment	EA																																1	1
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 21																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF	7,800																																7,800
Submergeed Pipeline Standby Costs	DAY	5.2																																5
Warning Floats	EA	1																																1
Prelay Shore Pipeline																																		
Prelay Shore Pipeline	LF	1,500																																1,500
Shore Pipeline Standby Costs	DAY	3.0																																3
Deck Barge	EA	3																																3
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF	9,000																																9,000
Submerged Pipeline Stanby Cost	DAY	6.0																																6
Warning Floats	EA	1																																1
Pickup Shore Pipeline																																		
Pickup Shore Pipeline	LF	1,000																																1,000
Shore Pipeline Standby Costs	DAY	2.0																																2
Deck Barge	DAY	2.0																																2
Tug Rental	HR	1,306																																1,306
Tug Rental	HR	653																																653
Dredge Pipeline Crew	DAY	7.8																																8
Crew Boat (Hourly Contractor Owned)	HR	93.6																																94
Crew Boat (24-HR Fully Operated Rental)	HR	374.4																																374
Survey Boat	HR	93.6																																94
Quarter Boat	DAY	7.8																																8
Trailering/Delivery of Land Based Equipment	EA	1																																1
Rock/Fabrick/Flotation Crew	DAY																																	
Marsh Cranes (Fully Operated Rental)	HR	120																																120
Marsh Cranes (Delivery Fee)	EA	2																																2
Pipeline Dredging																																		
Marine Survey	HR			6.9									6.0	6.0														9.0	6.0	6.0	6.0	6.0		52
Dredging Monthly Cost	MO			0.33									0.29	0.29														0.46	0.31	0.31	0.31	0.31		3
Excavation and Disposal - 27 in. Discharge	CY			109,600									109,600	109,600														374,000	257,900	267,400	267,400	267,400		1,762,900
Disposal Areas																																		
Dike Construction	CY												16,219																					16,219
Land Surveying	HR												14.7																					15
Marsh Crane Crew	HR																																	
Quarter Bardge	DAY																																	
Total																																		
			Contract 22																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Rock/Fabrick/Flotation Crew	DAY																																	
Marsh Cranes (Fully Operated Rental)	HR																																	
Marsh Cranes (Delivery Fee)	EA																																	
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Total																																		
			Contract 23																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																												1,500					1,500
Submergeed Pipeline Standby Costs	DAY																												1.0					1
Warning Floats	EA																												1					1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																												9,000					9,000
Submerged Pipeline Stanby Cost	DAY																												6.0					6
Warning Floats	EA																												1					1
Tug Rental	HR																												979.2					979
Tug Rental	HR																												326.4					326
Dredge Pipeline Crew	DAY																												7.8					8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																												374.4					374
Survey Boat	HR																												93.6					94
Quarter Boat	DAY																												7.8					8
Trailering/Delivery of Land Based Equipment	EA																												1					1
Pipeline Dredging																																		
Marine Survey	HR																											9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																											0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																											374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																		
			Contract 24																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 25																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																												1,500					1,500
Submergeed Pipeline Standby Costs	DAY																												1.0					1
Warning Floats	EA																												1					1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																												9,000					9,000
Submerged Pipeline Stanby Cost	DAY																												6.0					6
Warning Floats	EA																												1					1
Tug Rental	HR																												979.2					979
Tug Rental	HR																												326.4					326
Dredge Pipeline Crew	DAY																												7.8					8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																												374.4					374
Survey Boat	HR																												93.6					94
Quarter Boat	DAY																												7.8					8
Trailering/Delivery of Land Based Equipment	EA																												1					1
Pipeline Dredging																																		
Marine Survey	HR																											9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																											0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																											374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																		

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
			Contract 26																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF		3,000																														3,000	6,000
Submergeed Pipeline Standby Costs	DAY		2.0																														2.0	4
Warning Floats	EA		1																														1	2
Prelay Shore Pipeline																																		
Prelay Shore Pipeline	LF		3,000																														1,500	4,500
Shore Pipeline Standby Costs	DAY		6.0																														3.0	9
Deck Barge	EA		12																														3	15
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF		15,000																														9,000	24,000
Submerged Pipeline Stanby Cost	DAY		10.0																														6.0	16
Warning Floats	EA		1																														1	2
Pickup Shore Pipeline																																		
Pickup Shore Pipeline	LF		3,500																														1,000	4,500
Shore Pipeline Standby Costs	DAY		7.0																														2.0	9
Deck Barge	DAY		14.0																														2.0	16
Tug Rental	HR		1,632.0																														979.2	2,611
Tug Rental	HR		979.2																														326.4	1,306
Dredge Pipeline Crew (Monthly)	DAY		7.8																														7.8	16
Shore Crew for Pipeline Construction/Deconstruction	DAY		7.8																														187.2	195
Crew Boat (Hourly Contractor Owned)	HR		93.6																															94
Crew Boat (24-HR Fully Operated Rental)	HR																																	
Survey Boat	HR		93.6																														93.6	187
Quarter Boat	DAY		7.8																														7.8	16
Trailering/Delivery of Land Based Equipment	EA		1																														1	2
Rock/Fabrick/Flotation Crew	DAY		10.0																															10
Marsh Cranes (Fully Operated Rental)	HR		120																															120
Marsh Cranes (Delivery Fee)	EA		2																															2
Welded Pipeline (7E)																																		
Welding Crew																																		
2 Crew Welding Team	HR		72																															72
Trailering per Load	EA		4																															4
Delivering/Prelaying/Removing Shore Pipeline																																		
Prelay/Pickup Shore Pipe	LF		2,500																															2,500
Trailering per Load	EA		13																															13
Truck Loading/Unloading	EA		50																															50
Shore Pipeline Stanby Cost	DAY		2.0																															2
Welding Shore Pipeline																																		
2 Crew Welding Team	LF		2,500																															2,500
Shore Pipeline Stanby Cost	DAY		2.8																															3
Cutting Shore Pipeline																																		
1 Welder Crew	LF		2,500																															2,500
Shore Pipeline Stanby Cost	DAY		1.4																															1
Shore Pipeline Crew																																		
Shore Crew	DAY		7.8																															8
Trailering per Load	EA		4																															4
Jack and Bore Under HWY 57																																		
Horizontal Boring	LF		300																															300
Earthwork	CY		40																															40
Land Surveying	HR		20																															20
Pipeline Dredging																																		
Marine Survey	HR			6.9	6.9	6.9	6.9	6.9			6.9		6.0					6.0															110.0	163
Dredging Monthly Cost	MO			0.33	0.45	0.45	0.32	0.41			0.40		0.29					0.43															1.58	5
Excavation and Disposal - 27 in. Discharge	CY			109,600	219,600	165,800	219,600	219,600			219,600		109,600					109,600															580,000	1,953,000
Disposal Areas																																		
Dike Construction	CY				91,356		11,916	61,566			86,060		16,219	31,776																				298,893
Land Surveying	HR				83.1		10.8	56.0			78.2		14.7	28.9																				272
Marsh Crane Crew	HR				337.1		44.0	227.2			317.6		59.9	117.3																				1,103
Quarter Bardge	DAY				28.1		3.7	18.9			26.5		5.0	9.8																				92
Bank Stabilization																																		
Foreshore Protection																																		
Stone Placement/Material/Delivery	TON								1,900	5,320		21,300			11,820	1,960																		42,300
Geotextile																																		
Fabric Placement/Material/Delivery	SY																																	
Flotation Channel																																		
Excavation	BCY								21,042	47,428		161,990			109,218	12,191																		351,869
Total																																		
			Contract 27																															

			Channel Reach																																		
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																																		**Total**
Mobilization/Demobilization																																					
Prelay Submerged Pipeline																																					
Prelay Submerged Pipeline	LF																9,000													1,500						10,500
Submergeed Pipeline Standby Costs	DAY																6.0													1.0						7
Warning Floats	EA																1													1						2
Prelay Shore Pipeline																																					
Prelay Shore Pipeline	LF																3,000																				3,000
Shore Pipeline Standby Costs	DAY																6.0																				6
Deck Barge	EA																12																				12
Pickup Submerged Pipeline																																					
Pickup Submerged Pipeline	LF																6,000													9,000						15,000
Submerged Pipeline Stanby Cost	DAY																4.0													6.0						10
Warning Floats	EA																1													1						2
Pickup Shore Pipeline																																					
Pickup Shore Pipeline	LF																2,000																				2,000
Shore Pipeline Standby Costs	DAY																4.0																				4
Deck Barge	DAY																4.0																				4
Tug Rental	HR																979.2													979.2						1,958
Tug Rental	HR																326.4													326.4						653
Dredge Pipeline Crew	DAY																7.8													7.8						16
Crew Boat (Hourly Contractor Owned)	HR																93.6																				94
Crew Boat (24-HR Fully Operated Rental)	HR																374.4													374.4						749
Survey Boat	HR																93.6													93.6						187
Quarter Boat	DAY																7.8													7.8						16
Trailering/Delivery of Land Based Equipment	EA																1.0													1						2
Rock/Fabrick/Flotation Crew	DAY																10																				10
Marsh Cranes (Fully Operated Rental)	HR																120.0																				120
Marsh Cranes (Delivery Fee)	EA																2																				2
Pipeline Dredging																																					
Marine Survey	HR																	6.9			6.9	6.9					6.9		9.0	6.0	6.0	6.0	6.0		61
Dredging Monthly Cost	MO																	0.38			0.34	0.55					0.34		0.46	0.31	0.31	0.31	0.31		3
Excavation and Disposal - 27 in. Discharge	CY																	219,600			219,600	331,400					254,500		374,000	257,900	267,400	267,400	267,400		2,459,200
Disposal Areas																																					
Dike Construction	CY																	8,606			13,240	25,487					27,142								74,475
Land Surveying	HR																	7.8			12.0	23.2					24.7								68
Marsh Crane Crew	HR																	78.2			120.4	231.7					246.7								677
Quarter Bardge	DAY																	6.5			10.0	19.3					20.6								56
Bank Stabilization																																					
Foreshore Protection																																					
Stone Placement/Material/Delivery	TON																		19,900	3,640			13,480	42,600	18,900	15,180		5,420							119,120
Geotextile																																					
Fabric Placement/Material/Delivery	SY																																				
Flotation Channel																																					
Excavation	BCY																		135,604	29,893			91,516	320,640	253,506	89,178		29,893							950,230
Total																																					
			Contract 28																																		
Mobilization/Demobilization																																					
Prelay Submerged Pipeline																																					
Prelay Submerged Pipeline	LF																																		1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																		1.0	1
Warning Floats	EA																																		1	1
Pickup Submerged Pipeline																																					
Pickup Submerged Pipeline	LF																																		5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																		3.3	3
Warning Floats	EA																																		1	1
Tug Rental	HR																																		979.2	979
Tug Rental	HR																																		326.4	326
Dredge Pipeline Crew	DAY																																		7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																			
Crew Boat (24-HR Fully Operated Rental)	HR																																		374.4	374
Survey Boat	HR																																		93.6	94
Quarter Boat	DAY																																		7.8	8
Trailering/Delivery of Land Based Equipment	EA																																		1	1
Pipeline Dredging																																					
Marine Survey	HR																																		110.0	110
Dredging Monthly Cost	MO																																		1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																		580,000	580,000
Total																																					
			Contract 29																																		
Mobilization/Demobilization																																					

			Channel Reach																																
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																																**Total**
Prelay Submerged Pipeline																																			
Prelay Submerged Pipeline	LF																												1,500					1,500
Submergeed Pipeline Standby Costs	DAY																												1.0					1
Warning Floats	EA																												1					1
Pickup Submerged Pipeline																																			
Pickup Submerged Pipeline	LF																												9,000					9,000
Submerged Pipeline Stanby Cost	DAY																												6.0					6
Warning Floats	EA																												1					1
Tug Rental	HR																												979.2					979
Tug Rental	HR																												326.4					326
Dredge Pipeline Crew	DAY																												7.8					8
Crew Boat (Hourly Contractor Owned)	HR																																		
Crew Boat (24-HR Fully Operated Rental)	HR																												374.4					374
Survey Boat	HR																												93.6					94
Quarter Boat	DAY																												7.8					8
Trailering/Delivery of Land Based Equipment	EA																												1					1
Pipeline Dredging																																			
Marine Survey	HR																											9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																											0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																											374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																			
			Contract 30																																
Mobilization/Demobilization																																			
Prelay Submerged Pipeline																																			
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																			
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Pipeline Dredging																																			
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																			
			Contract 31																																
Mobilization/Demobilization																																			
Prelay Submerged Pipeline																																			
Prelay Submerged Pipeline	LF	3,000																																	3,000
Submergeed Pipeline Standby Costs	DAY	2.0																																	2
Warning Floats	EA	1																																	1
Prelay Shore Pipeline																																			
Prelay Shore Pipeline	LF	2,500																																	2,500
Shore Pipeline Standby Costs	DAY	5.0																																	5
Deck Barge	EA	10																																	10
Pickup Submerged Pipeline																																			
Pickup Submerged Pipeline	LF	15,000																																	15,000
Submerged Pipeline Stanby Cost	DAY	10.0																																	10
Warning Floats	EA	1																																	1
Pickup Shore Pipeline																																			
Pickup Shore Pipeline	LF	1,500																																	1,500
Shore Pipeline Standby Costs	DAY	3.0																																	3
Deck Barge	DAY	6.0																																	6
Tug Rental	HR	1,306																																	1,306
Tug Rental	HR	653																																	653
Dredge Pipeline Crew	DAY	7.8																																	8
Crew Boat (Hourly Contractor Owned)	HR	93.6																																	94
Crew Boat (24-HR Fully Operated Rental)	HR	374.4																																	374
Survey Boat	HR	93.6																																	94
Survey Boat	HR	187.2																																	187
Quarter Boat	DAY	7.8																																	8

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Trailering/Delivery of Land Based Equipment	EA	1																																1
Rock/Fabrick/Flotation Crew	DAY																																	
Marsh Cranes (Fully Operated Rental)	HR	120																																120
Marsh Cranes (Delivery Fee)	EA	2																																2
Pipeline Dredging																																		
Marine Survey	HR			6.9									6.0	6.0														9.0	6.0	6.0	6.0	6.0		52
Dredging Monthly Cost	MO			0.33									0.29	0.36														0.46	0.31	0.31	0.31	0.31		3
Excavation and Disposal - 27 in. Discharge	CY			109,600									109,600	109,600														374,000	257,900	267,400	267,400	267,400		1,762,900
Disposal Areas																																		
Dike Construction	CY												16,219	31,776																				47,995
Land Surveying	HR												14.7	28.9																				44
Marsh Crane Crew	HR																																	
Quarter Bardge	DAY																																	
Total																																		
			Contract 32																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Rock/Fabrick/Flotation Crew	DAY																																	
Marsh Cranes (Fully Operated Rental)	HR																																	
Marsh Cranes (Delivery Fee)	EA																																	
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 33																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																												1,500					1,500
Submergeed Pipeline Standby Costs	DAY																												1.0					1
Warning Floats	EA																												1					1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																												9,000					9,000
Submerged Pipeline Stanby Cost	DAY																												6.0					6
Warning Floats	EA																												1					1
Tug Rental	HR																												979.2					979
Tug Rental	HR																												326.4					326
Dredge Pipeline Crew	DAY																												7.8					8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																												374.4					374
Survey Boat	HR																												93.6					94
Quarter Boat	DAY																												7.8					8
Trailering/Delivery of Land Based Equipment	EA																												1					1
Pipeline Dredging																																		
Marine Survey	HR																												9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																												0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																												374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																		
			Contract 34																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		

			Channel Reach																																			
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																																			**Total**
Pickup Submerged Pipeline	LF																																				5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																				3.3	3
Warning Floats	EA																																				1	1
Tug Rental	HR																																				979.2	979
Tug Rental	HR																																				326.4	326
Dredge Pipeline Crew	DAY																																				7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																					
Crew Boat (24-HR Fully Operated Rental)	HR																																				374.4	374
Survey Boat	HR																																				93.6	94
Quarter Boat	DAY																																				7.8	8
Trailering/Delivery of Land Based Equipment	EA																																				1	1
Pipeline Dredging																																						
Marine Survey	HR																																				110.0	110
Dredging Monthly Cost	MO																																				1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																				580,000	580,000
Total																																						
			Contract 35																																					
Mobilization/Demobilization																																						
Prelay Submerged Pipeline																																						
Prelay Submerged Pipeline	LF																																				1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																				1.0	1
Warning Floats	EA																																				1	1
Pickup Submerged Pipeline																																						
Pickup Submerged Pipeline	LF																																				9,000	9,000
Submerged Pipeline Stanby Cost	DAY																																				6.0	6
Warning Floats	EA																																				1	1
Tug Rental	HR																																				979.2	979
Tug Rental	HR																																				326.4	326
Dredge Pipeline Crew	DAY																																				7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																					
Crew Boat (24-HR Fully Operated Rental)	HR																																				374.4	374
Survey Boat	HR																																				93.6	94
Quarter Boat	DAY																																				7.8	8
Trailering/Delivery of Land Based Equipment	EA																																				1	1
Pipeline Dredging																																						
Marine Survey	HR																																			9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																																			0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																																			374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																						
			Contract 36																																					
Mobilization/Demobilization																																						
Prelay Submerged Pipeline																																						
Prelay Submerged Pipeline	LF		3,000																																			3,000	6,000
Submergeed Pipeline Standby Costs	DAY		2.0																																			2.0	4
Warning Floats	EA		1																																			1	2
Prelay Shore Pipeline																																						
Prelay Shore Pipeline	LF		3,000																																			1,500	4,500
Shore Pipeline Standby Costs	DAY		6.0																																			3.0	9
Deck Barge	EA		12																																			3	15
Pickup Submerged Pipeline																																						
Pickup Submerged Pipeline	LF		15,000																																			9,000	24,000
Submerged Pipeline Stanby Cost	DAY		10.0																																			6.0	16
Warning Floats	EA		1																																			1	2
Pickup Shore Pipeline																																						
Pickup Shore Pipeline	LF		3,500																																			1,000	4,500
Shore Pipeline Standby Costs	DAY		7.0																																			2.0	9
Deck Barge	DAY		14.0																																			2.0	16
Tug Rental	HR		1,632.0																																			979.2	2,611
Tug Rental	HR		979.2																																			326.4	1,306
Dredge Pipeline Crew (Monthly)	DAY		7.8																																			7.8	16
Shore Crew for Pipeline Construction/Deconstruction	DAY		7.8																																			187.2	195
Crew Boat (Hourly Contractor Owned)	HR		93.6																																				94
Crew Boat (24-HR Fully Operated Rental)	HR																																						
Survey Boat	HR		93.6																																			93.6	187
Quarter Boat	DAY		7.8																																			7.8	16
Trailering/Delivery of Land Based Equipment	EA		1																																			1	2
Rock/Fabrick/Flotation Crew	DAY		10.0																																				10
Marsh Cranes (Fully Operated Rental)	HR		120																																				120
Marsh Cranes (Delivery Fee)	EA		2																																				2
Welded Pipeline (7E)																																						

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Welding Crew																																		
2 Crew Welding Team	HR		72																															72
Trailering per Load	EA		4																															4
Delivering/Prelaying/Removing Shore Pipeline																																		
Prelay/Pickup Shore Pipe	LF		2,500																															2,500
Trailering per Load	EA		13																															13
Truck Loading/Unloading	EA		50																															50
Shore Pipeline Stanby Cost	DAY		2.0																															2
Welding Shore Pipeline																																		
2 Crew Welding Team	LF		2,500																															2,500
Shore Pipeline Stanby Cost	DAY		2.8																															3
Cutting Shore Pipeline																																		
1 Welder Crew	LF		2,500																															2,500
Shore Pipeline Stanby Cost	DAY		1.4																															1
Shore Pipeline Crew																																		
Shore Crew	DAY		7.8																															8
Trailering per Load	EA		4																															4
Jack and Bore Under HWY 57																																		
Horizontal Boring	LF		300																															300
Earthwork	CY		40																															40
Land Surveying	HR		20																															20
Pipeline Dredging																																		
Marine Survey	HR			6.9	6.9	6.9	6.9	6.9			6.9		6.0					6.0																110.0	163
Dredging Monthly Cost	MO			0.33	0.45	0.45	0.32	0.41			0.40		0.29					0.43																1.58	5
Excavation and Disposal - 27 in. Discharge	CY			109,600	219,600	165,800	219,600	219,600			219,600		109,600					109,600																580,000	1,953,000
Disposal Areas																																		
Dike Construction	CY				91,356		11,916	61,566			86,060		16,219	31,776																					298,893
Land Surveying	HR				83.1		10.8	56.0			78.2		14.7	28.9																					272
Marsh Crane Crew	HR				337.1		44.0	227.2			317.6		59.9	117.3																					1,103
Quarter Bardge	DAY				28.1		3.7	18.9			26.5		5.0	9.8																					92
Bank Stabilization																																		
Foreshore Protection																																		
Stone Placement/Material/Delivery	TON								1,900	5,320		21,300			11,820	1,960																			42,300
Geotextile																																		
Fabric Placement/Material/Delivery	SY																																	
Flotation Channel																																		
Excavation	BCY								21,042	47,428		161,990			109,218	12,191																			351,869
Total																																		
			Contract 37																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																9,000																		10,500
Submergeed Pipeline Standby Costs	DAY																6.0																		7
Warning Floats	EA																1																		2
Prelay Shore Pipeline																																		
Prelay Shore Pipeline	LF																3,000																		3,000
Shore Pipeline Standby Costs	DAY																6.0																		6
Deck Barge	EA																12																		12
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																6,000																		15,000
Submerged Pipeline Stanby Cost	DAY																4.0																		10
Warning Floats	EA																1																		2
Pickup Shore Pipeline																																		
Pickup Shore Pipeline	LF																2,000																		2,000
Shore Pipeline Standby Costs	DAY																4.0																		4
Deck Barge	DAY																4.0																		4
Tug Rental	HR																979.2																		1,958
Tug Rental	HR																326.4																		653
Dredge Pipeline Crew	DAY																7.8																		16
Crew Boat (Hourly Contractor Owned)	HR																93.6																		94
Crew Boat (24-HR Fully Operated Rental)	HR																374.4																		749
Survey Boat	HR																93.6																		187
Quarter Boat	DAY																7.8																		16
Trailering/Delivery of Land Based Equipment	EA																1.0																		2
Rock/Fabrick/Flotation Crew	DAY																10																		10
Marsh Cranes (Fully Operated Rental)	HR																120.0																		120
Marsh Cranes (Delivery Fee)	EA																2																		2
Pipeline Dredging																																		
Marine Survey	HR																	6.9			6.9	6.9					6.9		9.0	6.0	6.0	6.0	6.0		61
Dredging Monthly Cost	MO																	0.38			0.34	0.55					0.34		0.46	0.31	0.31	0.31	0.31		3

			Channel Reach																														
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**																	**O&M**															**Total**
Excavation and Disposal - 27 in. Discharge	CY																	219,600			219,600	331,400					254,500		374,000	257,900	267,400	267,400	267,400		2,459,200
Disposal Areas																																			
Dike Construction	CY																	8,606			13,240	25,487					27,142								74,475
Land Surveying	HR																	7.8			12.0	23.2					24.7								68
Marsh Crane Crew	HR																	78.2			120.4	231.7					246.7								677
Quarter Bardge	DAY																	6.5			10.0	19.3					20.6								56
Bank Stabilization																																			
Foreshore Protection																																			
Stone Placement/Material/Delivery	TON																		19,900	3,640			13,480	42,600	18,900	15,180		5,420							119,120
Geotextile																																			
Fabric Placement/Material/Delivery	SY																																		
Flotation Channel																																			
Excavation	BCY																		135,604	29,893			91,516	320,640	253,506	89,178		29,893							950,230
Total																																			
			Contract 38																																
Mobilization/Demobilization																																			
Prelay Submerged Pipeline																																			
Prelay Submerged Pipeline	LF																																	1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																	1.0	1
Warning Floats	EA																																	1	1
Pickup Submerged Pipeline																																			
Pickup Submerged Pipeline	LF																																	5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																	3.3	3
Warning Floats	EA																																	1	1
Tug Rental	HR																																	979.2	979
Tug Rental	HR																																	326.4	326
Dredge Pipeline Crew	DAY																																	7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																		
Crew Boat (24-HR Fully Operated Rental)	HR																																	374.4	374
Survey Boat	HR																																	93.6	94
Quarter Boat	DAY																																	7.8	8
Trailering/Delivery of Land Based Equipment	EA																																	1	1
Pipeline Dredging																																			
Marine Survey	HR																																	9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																																	0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																																	374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																			
			Contract 40																																
Mobilization/Demobilization																																			
Prelay Submerged Pipeline																																			
Prelay Submerged Pipeline	LF																																	1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																	1.0	1
Warning Floats	EA																																	1	1
Pickup Submerged Pipeline																																			
Pickup Submerged Pipeline	LF																																	5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																	3.3	3
Warning Floats	EA																																	1	1

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 41																																	
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF	3,000																																3,000
Submergeed Pipeline Standby Costs	DAY	2.0																																2
Warning Floats	EA	1																																1
Prelay Shore Pipeline																																		
Prelay Shore Pipeline	LF	2,500																																2,500
Shore Pipeline Standby Costs	DAY	5.0																																5
Deck Barge	EA	10																																10
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF	15,000																																15,000
Submerged Pipeline Stanby Cost	DAY	10.0																																10
Warning Floats	EA	1																																1
Pickup Shore Pipeline																																		
Pickup Shore Pipeline	LF	5,000																																5,000
Shore Pipeline Standby Costs	DAY	10.0																																10
Deck Barge	DAY	20.0																																20
Tug Rental	HR	1,306																																1,306
Tug Rental	HR	653																																653
Dredge Pipeline Crew	DAY	7.8																																8
Crew Boat (Hourly Contractor Owned)	HR	93.6																																94
Crew Boat (24-HR Fully Operated Rental)	HR	374.4																																374
Survey Boat	HR	93.6																																94
Quarter Boat	DAY	7.8																																8
Trailering/Delivery of Land Based Equipment	EA	1																																1
Rock/Fabrick/Flotation Crew	DAY																																	
Marsh Cranes (Fully Operated Rental)	HR	120																																120
Marsh Cranes (Delivery Fee)	EA	2																																2
Pipeline Dredging																																		
Marine Survey	HR			6.9									6.0	6.0															9.0	6.0	6.0	6.0	6.0		52
Dredging Monthly Cost	MO			0.33									0.29	0.36															0.46	0.31	0.31	0.31	0.31		3
Excavation and Disposal - 27 in. Discharge	CY			109,600									109,600	109,600															374,000	257,900	267,400	267,400	267,400		1,762,900
Disposal Areas																																		
Dike Construction	CY												31,776																						31,776
Land Surveying	HR												28.9																						29
Marsh Crane Crew	HR												288.9																						289
Quarter Bardge	DAY												24.1																						24
Total																																		
			Contract 42																																	
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1

			Channel Reach																															
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																															**Total**
Rock/Fabrick/Flotation Crew	DAY																																	
Marsh Cranes (Fully Operated Rental)	HR																																	
Marsh Cranes (Delivery Fee)	EA																																	
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 43																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																													1,500				1,500
Submergeed Pipeline Standby Costs	DAY																													1.0				1
Warning Floats	EA																													1				1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																													9,000				9,000
Submerged Pipeline Stanby Cost	DAY																													6.0				6
Warning Floats	EA																													1				1
Tug Rental	HR																													979.2				979
Tug Rental	HR																													326.4				326
Dredge Pipeline Crew	DAY																													7.8				8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																													374.4				374
Survey Boat	HR																													93.6				94
Quarter Boat	DAY																													7.8				8
Trailering/Delivery of Land Based Equipment	EA																													1				1
Pipeline Dredging																																		
Marine Survey	HR																												9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																												0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																												374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																		
			Contract 44																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																																1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																1.0	1
Warning Floats	EA																																1	1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																																5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																3.3	3
Warning Floats	EA																																1	1
Tug Rental	HR																																979.2	979
Tug Rental	HR																																326.4	326
Dredge Pipeline Crew	DAY																																7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																																374.4	374
Survey Boat	HR																																93.6	94
Quarter Boat	DAY																																7.8	8
Trailering/Delivery of Land Based Equipment	EA																																1	1
Pipeline Dredging																																		
Marine Survey	HR																																110.0	110
Dredging Monthly Cost	MO																																1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																580,000	580,000
Total																																		
			Contract 45																															
Mobilization/Demobilization																																		
Prelay Submerged Pipeline																																		
Prelay Submerged Pipeline	LF																													1,500				1,500
Submergeed Pipeline Standby Costs	DAY																													1.0				1
Warning Floats	EA																													1				1
Pickup Submerged Pipeline																																		
Pickup Submerged Pipeline	LF																													9,000				9,000
Submerged Pipeline Stanby Cost	DAY																													6.0				6
Warning Floats	EA																													1				1
Tug Rental	HR																													979.2				979
Tug Rental	HR																													326.4				326
Dredge Pipeline Crew	DAY																													7.8				8
Crew Boat (Hourly Contractor Owned)	HR																																	
Crew Boat (24-HR Fully Operated Rental)	HR																													374.4				374
Survey Boat	HR																													93.6				94

			Channel Reach																													
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																													**Total**
Quarter Boat	DAY																											7.8					8
Trailering/Delivery of Land Based Equipment	EA																											1					1
Pipeline Dredging																																	
Marine Survey	HR																											9.0	6.0	6.0	6.0	6.0	33
Dredging Monthly Cost	MO																											0.46	0.31	0.31	0.31	0.31	2
Excavation and Disposal - 27 in. Discharge	CY																											374,000	257,900	267,400	267,400	267,400	1,434,100
Total																																	
			Contract 46																														
Mobilization/Demobilization																																	
Prelay Submerged Pipeline																																	
Prelay Submerged Pipeline	LF		3,000																													3,000	6,000
Submergeed Pipeline Standby Costs	DAY		2.0																													2.0	4
Warning Floats	EA		1																													1	2
Prelay Shore Pipeline																																	
Prelay Shore Pipeline	LF		3,000																													1,500	4,500
Shore Pipeline Standby Costs	DAY		6.0																													3.0	9
Deck Barge	EA		12																													3	15
Pickup Submerged Pipeline																																	
Pickup Submerged Pipeline	LF		15,000																													9,000	24,000
Submerged Pipeline Stanby Cost	DAY		10.0																													6.0	16
Warning Floats	EA		1																													1	2
Pickup Shore Pipeline																																	
Pickup Shore Pipeline	LF		3,500																													1,000	4,500
Shore Pipeline Standby Costs	DAY		7.0																													2.0	9
Deck Barge	DAY		14.0																													2.0	16
Tug Rental	HR		1,632.0																													979.2	2,611
Tug Rental	HR		979.2																													326.4	1,306
Dredge Pipeline Crew (Monthly)	DAY		7.8																													7.8	16
Shore Crew for Pipeline Construction/Deconstruction	DAY		7.8																													187.2	195
Crew Boat (Hourly Contractor Owned)	HR		93.6																														94
Crew Boat (24-HR Fully Operated Rental)	HR																																
Survey Boat	HR		93.6																													93.6	187
Quarter Boat	DAY		7.8																													7.8	16
Trailering/Delivery of Land Based Equipment	EA		1																													1	2
Rock/Fabrick/Flotation Crew	DAY		10.0																														10
Marsh Cranes (Fully Operated Rental)	HR		120																														120
Marsh Cranes (Delivery Fee)	EA		2																														2
Welded Pipeline (7E)																																	
Welding Crew																																	
2 Crew Welding Team	HR		72																														72
Trailering per Load	EA		4																														4
Delivering/Prelaying/Removing Shore Pipeline																																	
Prelay/Pickup Shore Pipe	LF		2,500																														2,500
Trailering per Load	EA		13																														13
Truck Loading/Unloading	EA		50																														50
Shore Pipeline Stanby Cost	DAY		2.0																														2
Welding Shore Pipeline																																	
2 Crew Welding Team	LF		2,500																														2,500
Shore Pipeline Stanby Cost	DAY		2.8																														3
Cutting Shore Pipeline																																	
1 Welder Crew	LF		2,500																														2,500
Shore Pipeline Stanby Cost	DAY		1.4																														1
Shore Pipeline Crew																																	
Shore Crew	DAY		7.8																														8
Trailering per Load	EA		4																														4
Jack and Bore Under HWY 57																																	
Horizontal Boring	LF		300																														300
Earthwork	CY		40																														40
Land Surveying	HR		20																														20
Pipeline Dredging																																	
Marine Survey	HR			6.9	6.9	6.9	6.9	6.9			6.9		6.0	6.0																			110.0	163
Dredging Monthly Cost	MO			0.33	0.45	0.45	0.32	0.41			0.40		0.29	0.43																			1.58	5
Excavation and Disposal - 27 in. Discharge	CY			109,600	219,600	165,800	219,600	219,600			219,600		109,600	109,600																			580,000	1,953,000
Disposal Areas																																	
Dike Construction	CY				91,356		11,916	61,566			86,060		31,776																					282,674
Land Surveying	HR				83.1		10.8	56.0			78.2		28.9																					257
Marsh Crane Crew	HR				337.1		44.0	227.2			317.6		117.3																					1,043
Quarter Bardge	DAY				28.1		3.7	18.9			26.5		9.8																					87
Bank Stabilization																																	
Foreshore Protection																																	

			Channel Reach																																	
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																																	**Total**
Stone Placement/Material/Delivery	TON								1,900	5,320		21,300			11,820	1,960																				42,300
Geotextile																																				
Fabric Placement/Material/Delivery	SY																																			
Flotation Channel																																				
Excavation	BCY								21,042	47,428		161,990			109,218	12,191																				351,869
Total																																				
			Contract 47																																	
Mobilization/Demobilization																																				
Prelay Submerged Pipeline																																				
Prelay Submerged Pipeline	LF																9,000												1,500							10,500
Submergeed Pipeline Standby Costs	DAY																6.0												1.0							7
Warning Floats	EA																1												1							2
Prelay Shore Pipeline																																				
Prelay Shore Pipeline	LF																3,000																			3,000
Shore Pipeline Standby Costs	DAY																6.0																			6
Deck Barge	EA																12																			12
Pickup Submerged Pipeline																																				
Pickup Submerged Pipeline	LF																6,000												9,000							15,000
Submerged Pipeline Stanby Cost	DAY																4.0												6.0							10
Warning Floats	EA																1												1							2
Pickup Shore Pipeline																																				
Pickup Shore Pipeline	LF																2,000																			2,000
Shore Pipeline Standby Costs	DAY																4.0																			4
Deck Barge	DAY																4.0																			4
Tug Rental	HR																1,306.0												979.2							2,285
Tug Rental	HR																653.0												326.4							979
Dredge Pipeline Crew	DAY																7.8												7.8							16
Crew Boat (Hourly Contractor Owned)	HR																93.6																			94
Crew Boat (24-HR Fully Operated Rental)	HR																374.4												374.4							749
Survey Boat	HR																93.6												93.6							187
Quarter Boat	DAY																7.8												7.8							16
Trailering/Delivery of Land Based Equipment	EA																1.0												1							2
Rock/Fabrick/Flotation Crew	DAY																10																			10
Marsh Cranes (Fully Operated Rental)	HR																120.0																			120
Marsh Cranes (Delivery Fee)	EA																2																			2
Pipeline Dredging																																				
Marine Survey	HR																	6.9			6.9	6.9					6.9		9.0	6.0	6.0	6.0	6.0		61
Dredging Monthly Cost	MO																	0.38			0.43	0.55					0.34		0.46	0.31	0.31	0.31	0.31		3
Excavation and Disposal - 27 in. Discharge	CY																	219,600			219,600	331,400					254,500		374,000	257,900	267,400	267,400	267,400		2,459,200
Disposal Areas																																				
Dike Construction	CY																	8,606			25,487						27,142								61,235
Land Surveying	HR																	7.8			23.2						24.7								56
Marsh Crane Crew	HR																	78.2			231.7						246.7								557
Quarter Bardge	DAY																	6.5			19.3						20.6								46
Bank Stabilization																																				
Foreshore Protection																																				
Stone Placement/Material/Delivery	TON																		19,900	3,640			13,480	42,600	18,900	15,180		5,420							119,120
Geotextile																																				
Fabric Placement/Material/Delivery	SY																																			
Flotation Channel																																				
Excavation	BCY																		135,604	29,893			91,516	320,640	253,506	89,178		29,893							950,230
Total																																				
			Contract 48																																	
Mobilization/Demobilization																																				
Prelay Submerged Pipeline																																				
Prelay Submerged Pipeline	LF																																		1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																		1.0	1
Warning Floats	EA																																		1	1
Pickup Submerged Pipeline																																				
Pickup Submerged Pipeline	LF																																		5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																		3.3	3
Warning Floats	EA																																		1	1
Tug Rental	HR																																		979.2	979
Tug Rental	HR																																		326.4	326
Dredge Pipeline Crew	DAY																																		7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																			
Crew Boat (24-HR Fully Operated Rental)	HR																																		374.4	374
Survey Boat	HR																																		93.6	94
Quarter Boat	DAY																																		7.8	8
Trailering/Delivery of Land Based Equipment	EA																																		1	1

			Channel Reach																																	
		36.3 - 20.0; 11.0 - 0.0	36.3 - 20.0	36.3 - 34.0	34.0 - 32.0	32.0 - 29.5	29.5 - 28.0	28.0 - 26.0	27.6 - 27.4	26.4 - 25.9	26.0 - 24.0	25.9 - 24.1	24.0 - 22.0	22.0 - 20.0	23.7 - 22.4	22.2 - 22.1	20.0 - 11.0; 11.0 - 0.0	20.0 - 18.0	19.2 - 17.5	19.1 - 17.8	18.0 - 16.0	16.0 - 13.0	17.7 - 16.7	16.9 - 13.3	15.6 - 14.0	13.1 - 11.9	13.0 - 11.0	12.7 - 12.3	11.0 - 8.0	8.0 - 6.0	6.0 - 4.0	4.0 - 2.0	2.0 - 0.0	0.0 - (3.7)	
Cost Item	**UOM**		**O&M**																																	**Total**
Pipeline Dredging																																				
Marine Survey	HR																																		110.0	110
Dredging Monthly Cost	MO																																		1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																		580,000	580,000
Total																																				
			Contract 49																																			
Mobilization/Demobilization																																				
Prelay Submerged Pipeline																																				
Prelay Submerged Pipeline	LF																													1,500					1,500
Submergeed Pipeline Standby Costs	DAY																													1.0					1
Warning Floats	EA																													1					1
Pickup Submerged Pipeline																																				
Pickup Submerged Pipeline	LF																													9,000					9,000
Submerged Pipeline Stanby Cost	DAY																													6.0					6
Warning Floats	EA																													1					1
Tug Rental	HR																													979.2					979
Tug Rental	HR																													326.4					326
Dredge Pipeline Crew	DAY																													7.8					8
Crew Boat (Hourly Contractor Owned)	HR																																			
Crew Boat (24-HR Fully Operated Rental)	HR																													374.4					374
Survey Boat	HR																													93.6					94
Quarter Boat	DAY																													7.8					8
Trailering/Delivery of Land Based Equipment	EA																													1					1
Pipeline Dredging																																				
Marine Survey	HR																												9.0	6.0	6.0	6.0	6.0		33
Dredging Monthly Cost	MO																												0.46	0.31	0.31	0.31	0.31		2
Excavation and Disposal - 27 in. Discharge	CY																												374,000	257,900	267,400	267,400	267,400		1,434,100
Total																																				
			Contract 50																																			
Mobilization/Demobilization																																				
Prelay Submerged Pipeline																																				
Prelay Submerged Pipeline	LF																																		1,500	1,500
Submergeed Pipeline Standby Costs	DAY																																		1.0	1
Warning Floats	EA																																		1	1
Pickup Submerged Pipeline																																				
Pickup Submerged Pipeline	LF																																		5,000	5,000
Submerged Pipeline Stanby Cost	DAY																																		3.3	3
Warning Floats	EA																																		1	1
Tug Rental	HR																																		979.2	979
Tug Rental	HR																																		326.4	326
Dredge Pipeline Crew	DAY																																		7.8	8
Crew Boat (Hourly Contractor Owned)	HR																																			
Crew Boat (24-HR Fully Operated Rental)	HR																																		374.4	374
Survey Boat	HR																																		93.6	94
Quarter Boat	DAY																																		7.8	8
Trailering/Delivery of Land Based Equipment	EA																																		1	1
Pipeline Dredging																																				
Marine Survey	HR																																		110.0	110
Dredging Monthly Cost	MO																																		1.58	2
Excavation and Disposal - 27 in. Discharge	CY																																		580,000	580,000

APPENDIX C

Tentative Project Schedule

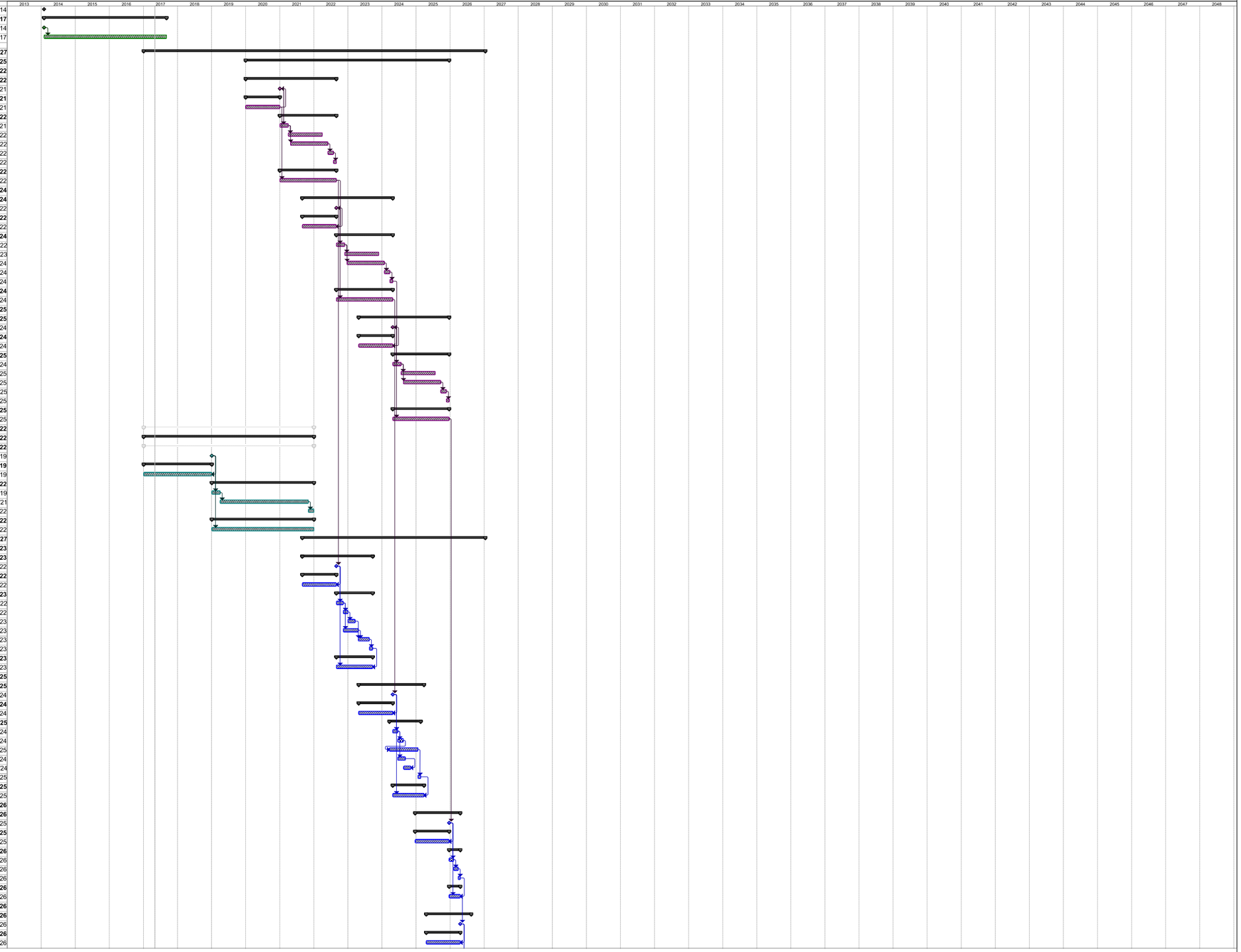
Implementation Schedule

	Construction Work
	O&M Work

O&M Year	Fiscal Year	O&M Contract	River Mile 36.3 to 34.0	River Mile 34.0 to 32.0	River Mile 32.0 to 29.5	River Mile 29.5 to 28.0	River Mile 28.0 to 26.0	River Mile 26.0 to 24.0	River Mile 24.0 to 22.0	River Mile 23.6 to 22.0 (east bank)	River Mile 22.8 to 20.7 (west bank)	River Mile 22.0 to 20.0	River Mile 20.0 to 18.0	River Mile 19.1 to 17.8 (west bank)	River Mile 19.2 to 17.7 (east bank)	River Mile 18.0 to 16.0	River Mile 17.6 to 16.6 (west bank)	River Mile 16.0 to 13.0	River Mile 16.9 to 13.3 (east bank)	River Mile 13.0 to 11.0	River Mile 13.1 to 11.9 (west bank)	River Mile 12.6 to 12.3 (east bank)	River Mile 11.0 to 5.0	River Mile 5.0 to 1.5	River Mile 1.5 to 0.0	River Mile 0.0 to -3.5
YR00	FY21		Federal Contract No. 1																							
YR01	FY22											Federal Contract No. 2														
YR02	FY23																						Federal Contract No. 3			
YR03	FY24																							Federal Contract No. 4		
YR04	FY25																									Federal Contract No. 5
YR05	FY26	OM01	Dredging 105,000-CY						Dredging 105,000-CY			Dredging 105,000-CY											Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR06	FY27	OM02																								Dredging 640,000-CY
YR07	FY28	OM03																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR08	FY29	OM04																								Dredging 640,000-CY
YR09	FY30	OM05																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR10	FY31	OM06	Dredging 105,000-CY	Dredging 210,000-CY, 8,900-LF Dikes	Dredging 158,000-CY, 1,100-LF Dikes, Pipe Corridor	Dredging 158,000-CY, Pipe Corridor	Dredging 210,000-CY, Pipe Corridor	Dredging 210,000-CY	Dredging 105,000-CY, 2,500-LF Dikes, Pipe Corridor	Stone Placement 14,400-TON	Stone Placement 26,000-TON	Dredging 105,000-CY														Dredging 640,000-CY
YR11	FY32	OM07											Dredging 210,000-CY	Stone Placement 15,800-TON	Stone Placement 20,400-TON	Dredging 210,000-CY, Pipe Corridor	Stone Placement 12,000-TON	Dredging 316,000-CY	Stone Placement 45,800-TON	Dredging 240,000-CY, Pipe Corridor	Stone Placement 16,200-TON	Stone Placement 5,900-TON	Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR12	FY33	OM08																								Dredging 640,000-CY
YR13	FY34	OM09																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR14	FY35	OM10																								Dredging 640,000-CY
YR15	FY36	OM11	Dredging 105,000-CY						Dredging 105,000-CY			Dredging 105,000-CY											Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR16	FY37	OM12																								Dredging 640,000-CY
YR17	FY38	OM13																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR18	FY39	OM14																								Dredging 640,000-CY
YR19	FY40	OM15																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR20	FY41	OM16	Dredging 105,000-CY	Dredging 210,000-CY, 8,900-LF Dikes	Dredging 158,000-CY, 1,100-LF Dikes	Dredging 158,000-CY	Dredging 210,000-CY	Dredging 210,000-CY	Dredging 105,000-CY, 2,500-LF Dikes	Stone Placement 14,400-TON	Stone Placement 26,000-TON	Dredging 105,000-CY														Dredging 640,000-CY
YR21	FY42	OM17											Dredging 210,000-CY	Stone Placement 15,800-TON	Stone Placement 20,400-TON	Dredging 210,000-CY	Stone Placement 12,000-TON	Dredging 316,000-CY	Stone Placement 45,800-TON	Dredging 240,000-CY	Stone Placement 16,200-TON	Stone Placement 5,900-TON	Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR22	FY43	OM18																								Dredging 640,000-CY
YR23	FY44	OM19																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR24	FY45	OM20																								Dredging 640,000-CY
YR25	FY46	OM21	Dredging 105,000-CY						Dredging 105,000-CY			Dredging 105,000-CY											Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR26	FY47	OM22																								Dredging 640,000-CY
YR27	FY48	OM23																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR28	FY49	OM24																								Dredging 640,000-CY
YR29	FY50	OM25																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR30	FY51	OM26	Dredging 105,000-CY	Dredging 210,000-CY, 8,900-LF Dikes	Dredging 158,000-CY, 1,100-LF Dikes	Dredging 158,000-CY	Dredging 210,000-CY	Dredging 210,000-CY	Dredging 105,000-CY, 2,500-LF Dikes	Stone Placement 14,400-TON	Stone Placement 26,000-TON	Dredging 105,000-CY														Dredging 640,000-CY
YR31	FY52	OM27											Dredging 210,000-CY	Stone Placement 15,800-TON	Stone Placement 20,400-TON	Dredging 210,000-CY	Stone Placement 12,000-TON	Dredging 316,000-CY	Stone Placement 45,800-TON	Dredging 240,000-CY	Stone Placement 16,200-TON	Stone Placement 5,900-TON	Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR32	FY53	OM28																								Dredging 640,000-CY
YR33	FY54	OM29																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR34	FY55	OM30																								Dredging 640,000-CY
YR35	FY56	OM31	Dredging 105,000-CY						Dredging 105,000-CY			Dredging 105,000-CY											Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR36	FY57	OM32																								Dredging 640,000-CY
YR37	FY58	OM33																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR38	FY59	OM34																								Dredging 640,000-CY
YR39	FY60	OM35																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR40	FY61	OM36	Dredging 105,000-CY	Dredging 210,000-CY, 8,900-LF Dikes	Dredging 158,000-CY, 1,100-LF Dikes	Dredging 158,000-CY	Dredging 210,000-CY	Dredging 210,000-CY	Dredging 105,000-CY, 2,500-LF Dikes	Stone Placement 14,400-TON	Stone Placement 26,000-TON	Dredging 105,000-CY														Dredging 640,000-CY
YR41	FY62	OM37											Dredging 210,000-CY	Stone Placement 15,800-TON	Stone Placement 20,400-TON	Dredging 210,000-CY	Stone Placement 12,000-TON	Dredging 316,000-CY	Stone Placement 45,800-TON	Dredging 240,000-CY	Stone Placement 16,200-TON	Stone Placement 5,900-TON	Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR42	FY63	OM38																								Dredging 640,000-CY
YR43	FY64	OM39																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR44	FY65	OM40																								Dredging 640,000-CY
YR45	FY66	OM41	Dredging 105,000-CY						Dredging 105,000-CY			Dredging 105,000-CY											Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR46	FY67	OM42																								Dredging 640,000-CY
YR47	FY68	OM43																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR48	FY69	OM44																								Dredging 640,000-CY
YR49	FY70	OM45																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR50	FY71	OM46	Dredging 105,000-CY	Dredging 210,000-CY, 8,900-LF Dikes	Dredging 158,000-CY, 1,100-LF Dikes	Dredging 158,000-CY	Dredging 210,000-CY	Dredging 210,000-CY	Dredging 105,000-CY, 2,500-LF Dikes	Stone Placement 14,400-TON	Stone Placement 26,000-TON	Dredging 105,000-CY														Dredging 640,000-CY
YR51	FY72	OM47											Dredging 210,000-CY	Stone Placement 15,800-TON	Stone Placement 20,400-TON	Dredging 210,000-CY	Stone Placement 12,000-TON	Dredging 316,000-CY	Stone Placement 45,800-TON	Dredging 240,000-CY	Stone Placement 16,200-TON	Stone Placement 5,900-TON	Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR52	FY73	OM48																								Dredging 640,000-CY
YR53	FY74	OM49																					Dredging 770,560-CY, 18,250-CY Dike	Dredging 470,640-CY, 41,750-CY Dike	Dredging 201,600-CY	
YR54	FY75	OM50																								Dredging 640,000-CY

HOUMA NAVIGATION CANAL
Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
1		0 days	Fri 1/31/14	Fri 1/31/14
2	**Pre-Construction**	**1313 days**	**Fri 1/31/14**	**Mon 9/4/17**
3	Project Schedule Start Date	0 days	Fri 1/31/14	Fri 1/31/14
4	Federal - Feasibility Study	1313 days	Fri 1/31/14	Mon 9/4/17
5				
6	**Construction**	**3662 days**	**Tue 1/3/17**	**Tue 1/12/27**
7	**Non-Federal Contracting (Relocations)**	**2182 days**	**Wed 1/1/20**	**Sun 12/21/25**
8	**Non-Federal - Contract No. 1**	**972 days**	**Wed 1/1/20**	**Mon 8/29/22**
9	**Pipeline Relocation (Mile 34.4 to Mile 26.5)**	**972 days**	**Wed 1/1/20**	**Mon 8/29/22**
10	NOTICE TO PROCEED	0 days	Fri 1/1/21	Fri 1/1/21
11	**30 PLANNING ENGINEERING & DESIGN**	**367 days**	**Wed 1/1/20**	**Fri 1/1/21**
12	Planning Engineering and Design	367 days	Wed 1/1/20	Fri 1/1/21
13	**02 RELOCATIONS**	**605 days**	**Sat 1/2/21**	**Mon 8/29/22**
14	Mobilization / Site Prep	90 days	Sat 1/2/21	Thu 4/1/21
15	Directional Drilling	365 days	Fri 4/2/21	Fri 4/1/22
16	Pull Pipe thru Drilled Hole	400 days	Tue 4/27/21	Tue 5/31/22
17	Install Junction Structure / Backfill	60 days	Wed 6/1/22	Sat 7/30/22
18	Demobilization	30 days	Sun 7/31/22	Mon 8/29/22
19	**31 CONSTRUCTION MANAGEMENT**	**605 days**	**Sat 1/2/21**	**Mon 8/29/22**
20	Construction Management	605 days	Sat 1/2/21	Mon 8/29/22
21	**Non-Federal - Contract No. 2**	**970 days**	**Mon 8/30/21**	**Thu 4/25/24**
22	**Pipeline Relocation (Mile 23.5 to Mile 11.9)**	**970 days**	**Mon 8/30/21**	**Thu 4/25/24**
23	NOTICE TO PROCEED	0 days	Mon 8/29/22	Mon 8/29/22
24	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Mon 8/30/21**	**Mon 8/29/22**
25	Planning Engineering and Design	365 days	Mon 8/30/21	Mon 8/29/22
26	**02 RELOCATIONS**	**605 days**	**Tue 8/30/22**	**Thu 4/25/24**
27	Mobilization / Site Prep	90 days	Tue 8/30/22	Sun 11/27/22
28	Directional Drilling	365 days	Mon 11/28/22	Mon 11/27/23
29	Pull Pipe thru Drilled Hole	400 days	Fri 12/23/22	Fri 1/26/24
30	Install Junction Structure / Backfill	60 days	Sat 1/27/24	Tue 3/26/24
31	Demobilization	30 days	Wed 3/27/24	Thu 4/25/24
32	**31 CONSTRUCTION MANAGEMENT**	**605 days**	**Tue 8/30/22**	**Thu 4/25/24**
33	Construction Management	605 days	Tue 8/30/22	Thu 4/25/24
34	**Non-Federal - Contract No. 3**	**970 days**	**Thu 4/27/23**	**Sun 12/21/25**
35	**Pipeline Relocation (Mile 11.9 to Mile 6.4)**	**970 days**	**Thu 4/27/23**	**Sun 12/21/25**
36	NOTICE TO PROCEED	0 days	Thu 4/25/24	Thu 4/25/24
37	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 4/27/23**	**Thu 4/25/24**
38	Planning Engineering and Design	365 days	Thu 4/27/23	Thu 4/25/24
39	**02 RELOCATIONS**	**605 days**	**Fri 4/26/24**	**Sun 12/21/25**
40	Mobilization / Site Prep	90 days	Fri 4/26/24	Wed 7/24/24
41	Directional Drilling	365 days	Thu 7/25/24	Thu 7/24/25
42	Pull Pipe thru Drilled Hole	400 days	Mon 8/19/24	Mon 9/22/25
43	Install Junction Structure / Backfill	60 days	Tue 9/23/25	Fri 11/21/25
44	Demobilization	30 days	Sat 11/22/25	Sun 12/21/25
45	**31 CONSTRUCTION MANAGEMENT**	**605 days**	**Fri 4/26/24**	**Sun 12/21/25**
46	Construction Management	605 days	Fri 4/26/24	Sun 12/21/25
47	**Federal Contracting (Separate Project - Lock Construction)**	**1825 days**	**Tue 1/3/17**	**Sat 1/1/22**
48	**Lock Construction**	**1825 days**	**Tue 1/3/17**	**Sat 1/1/22**
49	**Houma Lock Construction**	**1825 days**	**Tue 1/3/17**	**Sat 1/1/22**
50	NOTICE TO PROCEED	0 days	Thu 1/3/19	Thu 1/3/19
51	**30 PLANNING ENGINEERING & DESIGN**	**730 days**	**Tue 1/3/17**	**Thu 1/3/19**
52	Planning Engineering and Design	730 days	Tue 1/3/17	Thu 1/3/19
53	**05 LOCKS**	**1095 days**	**Thu 1/3/19**	**Sat 1/1/22**
54	Mobilization / Site Prep	90 days	Thu 1/3/19	Tue 4/2/19
55	Lock Construction	945 days	Wed 4/3/19	Tue 11/2/21
56	Demobilization	60 days	Wed 11/3/21	Sat 1/1/22
57	**31 CONSTRUCTION MANAGEMENT**	**1095 days**	**Thu 1/3/19**	**Sat 1/1/22**
58	Construction Management	1095 days	Thu 1/3/19	Sat 1/1/22
59	**Federal Contracting (Channel Improvements)**	**1962 days**	**Mon 8/30/21**	**Tue 1/12/27**
60	**Federal - Contract No. 1**	**755 days**	**Mon 8/30/21**	**Sat 9/23/23**
61	**Channel Improvements (Mile 36.3 to Mile 22.0)**	**755 days**	**Mon 8/30/21**	**Sat 9/23/23**
62	NOTICE TO PROCEED	0 days	Mon 8/29/22	Mon 8/29/22
63	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Mon 8/30/21**	**Mon 8/29/22**
64	Planning Engineering and Design	365 days	Mon 8/30/21	Mon 8/29/22
65	**09 CHANNELS**	**390 days**	**Tue 8/30/22**	**Sat 9/23/23**
66	Mobilization / Site Prep (Including Permits and Pipe Laydown)	75 days	Tue 8/30/22	Sat 11/12/22
67	Mechanical Dredging (Flotation Channel)	49 days	Sun 11/13/22	Sat 12/31/22
68	Rock/Geotextile Fabric Placement	77 days	Sun 1/1/23	Sat 3/18/23
69	Confinement Dikes (w/ 60 Days Settlement)	161 days	Sun 11/13/22	Sat 4/22/23
70	Hydraulic Dredging	118 days	Sun 4/23/23	Fri 8/18/23
71	Demobilization (Includes Pipe Pickup)	36 days	Sat 8/19/23	Sat 9/23/23
72	**31 CONSTRUCTION MANAGEMENT**	**390 days**	**Tue 8/30/22**	**Sat 9/23/23**
73	Construction Management	390 days	Tue 8/30/22	Sat 9/23/23
74	**Federal - Contract No. 2**	**700 days**	**Thu 4/27/23**	**Wed 3/26/25**
75	**Channel Improvements (Mile 22.0 to Mile 11.5)**	**700 days**	**Thu 4/27/23**	**Wed 3/26/25**
76	NOTICE TO PROCEED	0 days	Thu 4/25/24	Thu 4/25/24
77	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 4/27/23**	**Thu 4/25/24**
78	Planning Engineering and Design	365 days	Thu 4/27/23	Thu 4/25/24
79	**09 CHANNELS**	**335 days**	**Thu 3/21/24**	**Tue 2/18/25**
80	Mobilization / Site Prep (Including Permits and Pipe Laydown)	54 days	Fri 4/26/24	Tue 6/18/24
81	Mechanical Dredging (Flotation Channel)	60 days	Wed 6/19/24	Sat 8/17/24
82	Rock/Geotextile Fabric Placement	306 days	Thu 3/21/24	Mon 1/20/25
83	Confinement Dikes	80 days	Wed 6/19/24	Fri 9/6/24
84	Hydraulic Dredging	77 days	Wed 8/21/24	Tue 11/5/24
85	Demobilization (Includes Pipe Pickup)	29 days	Tue 1/21/25	Tue 2/18/25
86	**31 CONSTRUCTION MANAGEMENT**	**335 days**	**Fri 4/26/24**	**Wed 3/26/25**
87	Construction Management	335 days	Fri 4/26/24	Wed 3/26/25
88	**Federal - Contract No. 3**	**484 days**	**Sun 12/22/24**	**Sun 4/19/26**
89	**Channel Improvements (Mile 11.0 to Mile 6.0)**	**484 days**	**Sun 12/22/24**	**Sun 4/19/26**
90	NOTICE TO PROCEED	0 days	Sun 12/21/25	Sun 12/21/25
91	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sun 12/22/24**	**Sun 12/21/25**
92	Planning Engineering and Design	365 days	Sun 12/22/24	Sun 12/21/25
93	**09 CHANNELS**	**119 days**	**Mon 12/22/25**	**Sun 4/19/26**
94	Mobilization / Site Prep (Including Permits and Pipe Laydown)	48 days	Mon 12/22/25	Sat 2/7/26
95	Hydraulic Dredging	48 days	Sun 2/8/26	Fri 3/27/26
96	Demobilization (Includes Pipe Pickup)	23 days	Sat 3/28/26	Sun 4/19/26
97	**31 CONSTRUCTION MANAGEMENT**	**119 days**	**Mon 12/22/25**	**Sun 4/19/26**
98	Construction Management	119 days	Mon 12/22/25	Sun 4/19/26
99	**Federal - Contract No. 4**	**482 days**	**Sun 4/20/25**	**Fri 8/14/26**
100	**Channel Improvements (Mile 6.0 to Mile 0.0)**	**482 days**	**Sun 4/20/25**	**Fri 8/14/26**
101	NOTICE TO PROCEED	0 days	Sun 4/19/26	Sun 4/19/26
102	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sun 4/20/25**	**Sun 4/19/26**
103	Planning Engineering and Design	365 days	Sun 4/20/25	Sun 4/19/26

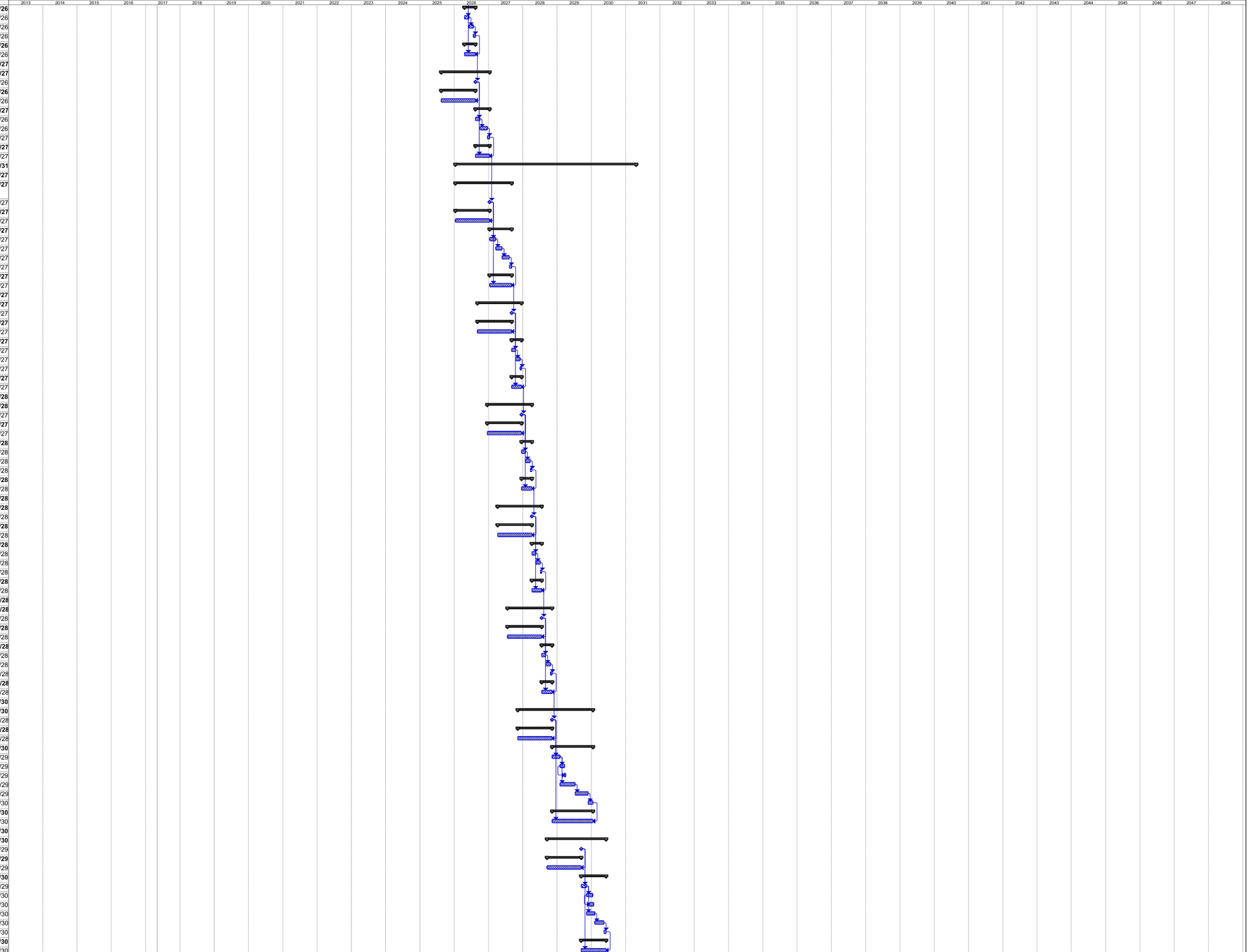


Project: HNC Full Schedule 5-3-17
Date: Wed 5/3/17

Task, Milestone, Summary, Rolled Up Task, Rolled Up Milestone, Rolled Up Progress, Split, External Tasks, Project Summary, Group By Summary, Inactive Task, Inactive Task, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only, Progress, Deadline

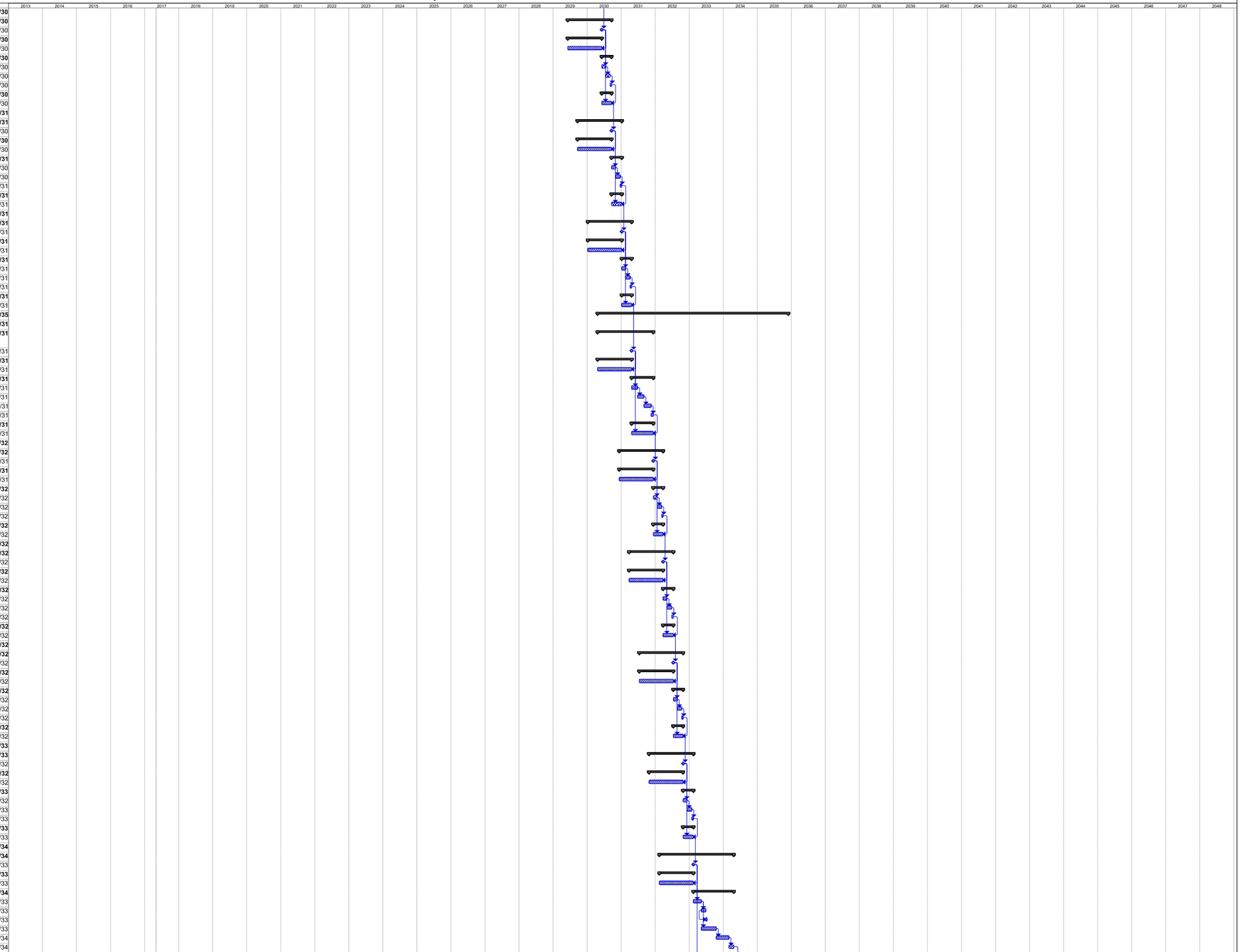
HOUMA NAVIGATION CANAL
Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
104	**09 CHANNELS**	**117 days**	**Mon 4/20/26**	**Fri 8/14/26**
105	Mobilization / Site Prep (Including Permits and Pipe Laydown)	48 days	Mon 4/20/26	Sat 6/6/26
106	Hydraulic Dredging	46 days	Sun 6/7/26	Wed 7/22/26
107	Demobilization (Includes Pipe Pickup)	23 days	Thu 7/23/26	Fri 8/14/26
108	**31 CONSTRUCTION MANAGEMENT**	**117 days**	**Mon 4/20/26**	**Fri 8/14/26**
109	Construction Management	117 days	Mon 4/20/26	Fri 8/14/26
110	**Federal - Contract No. 5**	**516 days**	**Fri 8/15/25**	**Tue 1/12/27**
111	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**516 days**	**Fri 8/15/25**	**Tue 1/12/27**
112	NOTICE TO PROCEED	0 days	Fri 8/14/26	Fri 8/14/26
113	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Fri 8/15/25**	**Fri 8/14/26**
114	Planning Engineering and Design	365 days	Fri 8/15/25	Fri 8/14/26
115	**09 CHANNELS**	**151 days**	**Sat 8/15/26**	**Tue 1/12/27**
116	Mobilization / Site Prep (Including Permits and Pipe Laydown)	48 days	Sat 8/15/26	Thu 10/1/26
117	Hydraulic Dredging	80 days	Fri 10/2/26	Sun 12/20/26
118	Demobilization (Includes Pipe Pickup)	23 days	Mon 12/21/26	Tue 1/12/27
119	**31 CONSTRUCTION MANAGEMENT**	**151 days**	**Sat 8/15/26**	**Tue 1/12/27**
120	Construction Management	151 days	Sat 8/15/26	Tue 1/12/27
121	**O&M Contracting (Cycle 1)**	**1926 days**	**Tue 1/13/26**	**Tue 4/22/31**
122	**O&M - Contract No. 1**	**600 days**	**Tue 1/13/26**	**Sat 9/4/27**
123	**Channel Improvements (Mile 36.3 to Mile 34.0, Mile 24.0 to Mile 22.0 & Mile 22.0 to Mile 20.0 & Mile 11.0 to Mile 0.0)**	**600 days**	**Tue 1/13/26**	**Sat 9/4/27**
124	NOTICE TO PROCEED	0 days	Tue 1/12/27	Tue 1/12/27
125	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 1/13/26**	**Tue 1/12/27**
126	Planning Engineering and Design	365 days	Tue 1/13/26	Tue 1/12/27
127	**09 CHANNELS**	**235 days**	**Wed 1/13/27**	**Sat 9/4/27**
128	Mobilization / Site Prep (Including Permits and Pipe Laydown)	65 days	Wed 1/13/27	Thu 3/18/27
129	Containment Sites	67 days	Fri 3/19/27	Mon 5/24/27
130	Hydraulic Dredging	78 days	Tue 5/25/27	Tue 8/10/27
131	Demobilization (Includes Pipe Pickup)	25 days	Wed 8/11/27	Sat 9/4/27
132	**31 CONSTRUCTION MANAGEMENT**	**235 days**	**Wed 1/13/27**	**Sat 9/4/27**
133	Construction Management	235 days	Wed 1/13/27	Sat 9/4/27
134	**O&M - Contract No. 2**	**470 days**	**Sat 9/5/26**	**Sat 12/18/27**
135	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Sat 9/5/26**	**Sat 12/18/27**
136	NOTICE TO PROCEED	0 days	Sat 9/4/27	Sat 9/4/27
137	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 9/5/26**	**Sat 9/4/27**
138	Planning Engineering and Design	365 days	Sat 9/5/26	Sat 9/4/27
139	**09 CHANNELS**	**105 days**	**Sun 9/5/27**	**Sat 12/18/27**
140	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sun 9/5/27	Sat 10/16/27
141	Hydraulic Dredging	48 days	Sun 10/17/27	Fri 12/3/27
142	Demobilization (Includes Pipe Pickup)	15 days	Sat 12/4/27	Sat 12/18/27
143	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Sun 9/5/27**	**Sat 12/18/27**
144	Construction Management	105 days	Sun 9/5/27	Sat 12/18/27
145	**O&M - Contract No. 3**	**475 days**	**Sat 12/19/26**	**Thu 4/6/28**
146	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Sat 12/19/26**	**Thu 4/6/28**
147	NOTICE TO PROCEED	0 days	Sat 12/18/27	Sat 12/18/27
148	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 12/19/26**	**Sat 12/18/27**
149	Planning Engineering and Design	365 days	Sat 12/19/26	Sat 12/18/27
150	**09 CHANNELS**	**110 days**	**Sun 12/19/27**	**Thu 4/6/28**
151	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sun 12/19/27	Sat 1/29/28
152	Hydraulic Dredging	51 days	Sun 1/30/28	Mon 3/20/28
153	Demobilization (Includes Pipe Pickup)	17 days	Tue 3/21/28	Thu 4/6/28
154	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Sun 12/19/27**	**Thu 4/6/28**
155	Construction Management	110 days	Sun 12/19/27	Thu 4/6/28
156	**O&M - Contract No. 4**	**470 days**	**Thu 4/8/27**	**Thu 7/20/28**
157	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Thu 4/8/27**	**Thu 7/20/28**
158	NOTICE TO PROCEED	0 days	Thu 4/6/28	Thu 4/6/28
159	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 4/8/27**	**Thu 4/6/28**
160	Planning Engineering and Design	365 days	Thu 4/8/27	Thu 4/6/28
161	**09 CHANNELS**	**105 days**	**Fri 4/7/28**	**Thu 7/20/28**
162	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 4/7/28	Thu 5/18/28
163	Hydraulic Dredging	48 days	Fri 5/19/28	Wed 7/5/28
164	Demobilization (Includes Pipe Pickup)	15 days	Thu 7/6/28	Thu 7/20/28
165	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Fri 4/7/28**	**Thu 7/20/28**
166	Construction Management	105 days	Fri 4/7/28	Thu 7/20/28
167	**O&M - Contract No. 5**	**475 days**	**Thu 7/22/27**	**Tue 11/7/28**
168	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Thu 7/22/27**	**Tue 11/7/28**
169	NOTICE TO PROCEED	0 days	Thu 7/20/28	Thu 7/20/28
170	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 7/22/27**	**Thu 7/20/28**
171	Planning Engineering and Design	365 days	Thu 7/22/27	Thu 7/20/28
172	**09 CHANNELS**	**110 days**	**Fri 7/21/28**	**Tue 11/7/28**
173	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 7/21/28	Thu 8/31/28
174	Hydraulic Dredging	51 days	Fri 9/1/28	Sat 10/21/28
175	Demobilization (Includes Pipe Pickup)	17 days	Sun 10/22/28	Tue 11/7/28
176	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Fri 7/21/28**	**Tue 11/7/28**
177	Construction Management	110 days	Fri 7/21/28	Tue 11/7/28
178	**O&M - Contract No. 6**	**801 days**	**Tue 11/9/27**	**Thu 1/17/30**
179	**Channel Improvements (Mile 36.3 to Mile 20.0 and Mile 0.0 to -3.7)**	**801 days**	**Tue 11/9/27**	**Thu 1/17/30**
180	NOTICE TO PROCEED	0 days	Tue 11/7/28	Tue 11/7/28
181	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 11/9/27**	**Tue 11/7/28**
182	Planning Engineering and Design	365 days	Tue 11/9/27	Tue 11/7/28
183	**09 CHANNELS**	**436 days**	**Wed 11/8/28**	**Thu 1/17/30**
184	Mobilization / Site Prep (Including Permits and Pipe Laydown)	85 days	Wed 11/8/28	Wed 1/31/29
185	Mechanical Dredging (Flotation Channel; 2 Crews)	49 days	Thu 2/1/29	Wed 3/21/29
186	Stone Placement (2 Crews)	16 days	Sun 3/18/29	Mon 4/2/29
187	Confinement Dikes (2 Crews)	161 days	Thu 2/1/29	Wed 7/11/29
188	Hydraulic Dredging	138 days	Thu 7/12/29	Mon 11/26/29
189	Demobilization (Includes Pipe Pickup)	52 days	Tue 11/27/29	Thu 1/17/30
190	**31 CONSTRUCTION MANAGEMENT**	**436 days**	**Wed 11/8/28**	**Thu 1/17/30**
191	Construction Management	436 days	Wed 11/8/28	Thu 1/17/30
192	**O&M - Contract No. 7**	**630 days**	**Fri 9/15/28**	**Thu 6/6/30**
193	**Channel Improvements (Mile 20.0 to Mile 0.0)**	**630 days**	**Fri 9/15/28**	**Thu 6/6/30**
194	NOTICE TO PROCEED	0 days	Sat 9/15/29	Sat 9/15/29
195	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Fri 9/15/28**	**Sat 9/15/29**
196	Planning Engineering and Design	365 days	Fri 9/15/28	Sat 9/15/29
197	**09 CHANNELS**	**265 days**	**Sat 9/15/29**	**Thu 6/6/30**
198	Mobilization / Site Prep (Including Permits and Pipe Laydown)	56 days	Sat 9/15/29	Fri 11/9/29
199	Mechanical Dredging (Flotation Channel)	66 days	Sat 11/10/29	Mon 1/14/30
200	Stone Placement (2 Crews)	46 days	Mon 12/10/29	Thu 1/24/30
201	Confinement Dikes	88 days	Sat 11/10/29	Tue 2/5/30
202	Hydraulic Dredging	98 days	Wed 2/6/30	Tue 5/14/30
203	Demobilization (Includes Pipe Pickup)	23 days	Wed 5/15/30	Thu 6/6/30
204	**31 CONSTRUCTION MANAGEMENT**	**265 days**	**Sat 9/15/29**	**Thu 6/6/30**
205	Construction Management	265 days	Sat 9/15/29	Thu 6/6/30



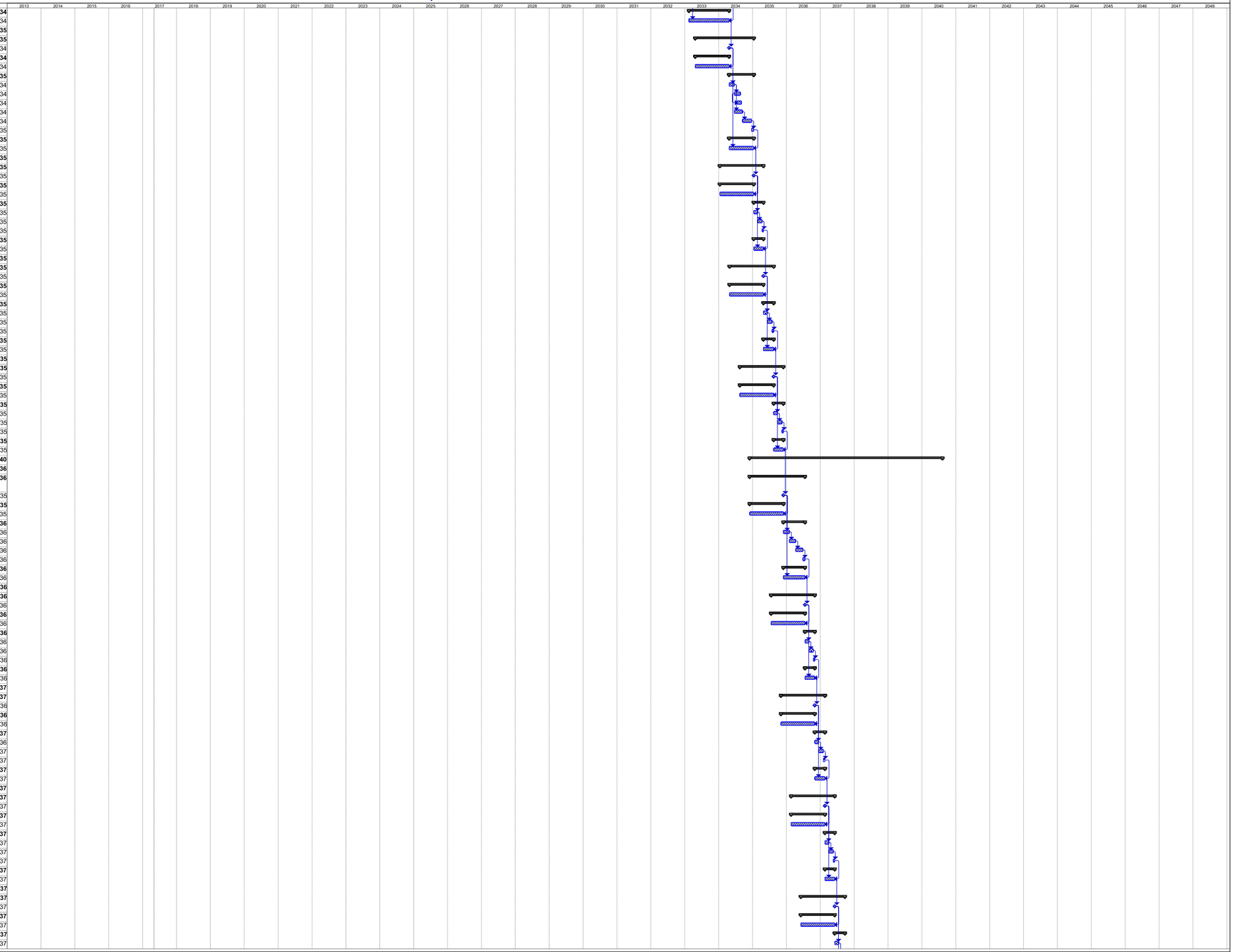
HOUMA NAVIGATION CANAL
Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
206	**O&M - Contract No. 8**	**470 days**	**Thu 6/7/29**	**Thu 9/19/30**
207	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Thu 6/7/29**	**Thu 9/19/30**
208	NOTICE TO PROCEED	0 days	Fri 6/7/30	Fri 6/7/30
209	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 6/7/29**	**Fri 6/7/30**
210	Planning Engineering and Design	365 days	Thu 6/7/29	Fri 6/7/30
211	**09 CHANNELS**	**105 days**	**Fri 6/7/30**	**Thu 9/19/30**
212	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 6/7/30	Thu 7/18/30
213	Hydraulic Dredging	48 days	Fri 7/19/30	Wed 9/4/30
214	Demobilization (Includes Pipe Pickup)	15 days	Thu 9/5/30	Thu 9/19/30
215	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Fri 6/7/30**	**Thu 9/19/30**
216	Construction Management	105 days	Fri 6/7/30	Thu 9/19/30
217	**O&M - Contract No. 9**	**475 days**	**Thu 9/20/29**	**Tue 1/7/31**
218	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Thu 9/20/29**	**Tue 1/7/31**
219	NOTICE TO PROCEED	0 days	Fri 9/20/30	Fri 9/20/30
220	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 9/20/29**	**Fri 9/20/30**
221	Planning Engineering and Design	365 days	Thu 9/20/29	Fri 9/20/30
222	**09 CHANNELS**	**110 days**	**Fri 9/20/30**	**Tue 1/7/31**
223	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 9/20/30	Thu 10/31/30
224	Hydraulic Dredging	51 days	Fri 11/1/30	Sat 12/21/30
225	Demobilization (Includes Pipe Pickup)	17 days	Sun 12/22/30	Tue 1/7/31
226	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Fri 9/20/30**	**Tue 1/7/31**
227	Construction Management	110 days	Fri 9/20/30	Tue 1/7/31
228	**O&M - Contract No. 10**	**470 days**	**Tue 1/8/30**	**Tue 4/22/31**
229	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Tue 1/8/30**	**Tue 4/22/31**
230	NOTICE TO PROCEED	0 days	Wed 1/8/31	Wed 1/8/31
231	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 1/8/30**	**Wed 1/8/31**
232	Planning Engineering and Design	365 days	Tue 1/8/30	Wed 1/8/31
233	**09 CHANNELS**	**105 days**	**Wed 1/8/31**	**Tue 4/22/31**
234	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Wed 1/8/31	Tue 2/18/31
235	Hydraulic Dredging	48 days	Wed 2/19/31	Mon 4/7/31
236	Demobilization (Includes Pipe Pickup)	15 days	Tue 4/8/31	Tue 4/22/31
237	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Wed 1/8/31**	**Tue 4/22/31**
238	Construction Management	105 days	Wed 1/8/31	Tue 4/22/31
239	**O&M Contracting (Cycle 2)**	**2047 days**	**Tue 4/23/30**	**Thu 11/29/35**
240	**O&M - Contract No. 11**	**598 days**	**Tue 4/23/30**	**Thu 12/11/31**
241	**Channel Improvements (Mile 36.3 to Mile 34.0, Mile 24.0 to Mile 22.0 & Mile 22.0 to Mile 20.0 & Mile 11.0 to Mile 0.0)**	**598 days**	**Tue 4/23/30**	**Thu 12/11/31**
242	NOTICE TO PROCEED	0 days	Tue 4/22/31	Tue 4/22/31
243	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 4/23/30**	**Tue 4/22/31**
244	Planning Engineering and Design	365 days	Tue 4/23/30	Tue 4/22/31
245	**09 CHANNELS**	**233 days**	**Wed 4/23/31**	**Thu 12/11/31**
246	Mobilization / Site Prep (Including Permits and Pipe Laydown)	65 days	Wed 4/23/31	Thu 6/26/31
247	Containment Sites	67 days	Fri 6/27/31	Mon 9/1/31
248	Hydraulic Dredging	78 days	Tue 9/2/31	Tue 11/18/31
249	Demobilization (Includes Pipe Pickup)	23 days	Wed 11/19/31	Thu 12/11/31
250	**31 CONSTRUCTION MANAGEMENT**	**233 days**	**Wed 4/23/31**	**Thu 12/11/31**
251	Construction Management	233 days	Wed 4/23/31	Thu 12/11/31
252	**O&M - Contract No. 12**	**470 days**	**Thu 12/12/30**	**Tue 3/25/32**
253	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Thu 12/12/30**	**Tue 3/25/32**
254	NOTICE TO PROCEED	0 days	Thu 12/11/31	Thu 12/11/31
255	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 12/12/30**	**Thu 12/11/31**
256	Planning Engineering and Design	365 days	Thu 12/12/30	Thu 12/11/31
257	**09 CHANNELS**	**105 days**	**Fri 12/12/31**	**Thu 3/25/32**
258	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 12/12/31	Thu 1/22/32
259	Hydraulic Dredging	48 days	Fri 1/23/32	Wed 3/10/32
260	Demobilization (Includes Pipe Pickup)	15 days	Thu 3/11/32	Thu 3/25/32
261	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Fri 12/12/31**	**Thu 3/25/32**
262	Construction Management	105 days	Fri 12/12/31	Thu 3/25/32
263	**O&M - Contract No. 13**	**475 days**	**Thu 3/27/31**	**Tue 7/13/32**
264	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Thu 3/27/31**	**Tue 7/13/32**
265	NOTICE TO PROCEED	0 days	Thu 3/25/32	Thu 3/25/32
266	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 3/27/31**	**Thu 3/25/32**
267	Planning Engineering and Design	365 days	Thu 3/27/31	Thu 3/25/32
268	**09 CHANNELS**	**110 days**	**Fri 3/26/32**	**Tue 7/13/32**
269	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 3/26/32	Thu 5/6/32
270	Hydraulic Dredging	51 days	Fri 5/7/32	Sat 6/26/32
271	Demobilization (Includes Pipe Pickup)	17 days	Sun 6/27/32	Tue 7/13/32
272	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Fri 3/26/32**	**Tue 7/13/32**
273	Construction Management	110 days	Fri 3/26/32	Tue 7/13/32
274	**O&M - Contract No. 14**	**470 days**	**Tue 7/15/31**	**Tue 10/26/32**
275	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Tue 7/15/31**	**Tue 10/26/32**
276	NOTICE TO PROCEED	0 days	Tue 7/13/32	Tue 7/13/32
277	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 7/15/31**	**Tue 7/13/32**
278	Planning Engineering and Design	365 days	Tue 7/15/31	Tue 7/13/32
279	**09 CHANNELS**	**105 days**	**Wed 7/14/32**	**Tue 10/26/32**
280	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Wed 7/14/32	Tue 8/24/32
281	Hydraulic Dredging	48 days	Wed 8/25/32	Mon 10/11/32
282	Demobilization (Includes Pipe Pickup)	15 days	Tue 10/12/32	Tue 10/26/32
283	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Wed 7/14/32**	**Tue 10/26/32**
284	Construction Management	105 days	Wed 7/14/32	Tue 10/26/32
285	**O&M - Contract No. 15**	**475 days**	**Tue 10/28/31**	**Sun 2/13/33**
286	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Tue 10/28/31**	**Sun 2/13/33**
287	NOTICE TO PROCEED	0 days	Tue 10/26/32	Tue 10/26/32
288	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 10/28/31**	**Tue 10/26/32**
289	Planning Engineering and Design	365 days	Tue 10/28/31	Tue 10/26/32
290	**09 CHANNELS**	**110 days**	**Wed 10/27/32**	**Sun 2/13/33**
291	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Wed 10/27/32	Tue 12/7/32
292	Hydraulic Dredging	51 days	Wed 12/8/32	Thu 1/27/33
293	Demobilization (Includes Pipe Pickup)	17 days	Fri 1/28/33	Sun 2/13/33
294	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Wed 10/27/32**	**Sun 2/13/33**
295	Construction Management	110 days	Wed 10/27/32	Sun 2/13/33
296	**O&M - Contract No. 16**	**799 days**	**Sun 2/15/32**	**Sun 4/23/34**
297	**Channel Improvements (Mile 36.3 to Mile 20.0 and Mile 0.0 to -3.7)**	**799 days**	**Sun 2/15/32**	**Sun 4/23/34**
298	NOTICE TO PROCEED	0 days	Sun 2/13/33	Sun 2/13/33
299	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sun 2/15/32**	**Sun 2/13/33**
300	Planning Engineering and Design	365 days	Sun 2/15/32	Sun 2/13/33
301	**09 CHANNELS**	**434 days**	**Mon 2/14/33**	**Sun 4/23/34**
302	Mobilization / Site Prep (Including Permits and Pipe Laydown)	85 days	Mon 2/14/33	Mon 5/9/33
303	Mechanical Dredging (Flotation Channel; 2 Crews)	49 days	Tue 5/10/33	Mon 6/27/33
304	Stone Placement (2 Crews)	16 days	Fri 6/24/33	Sat 7/9/33
305	Confinement Dikes (2 Crews)	161 days	Tue 5/10/33	Mon 10/17/33
306	Hydraulic Dredging	136 days	Tue 10/18/33	Thu 3/2/34
307	Demobilization (Includes Pipe Pickup)	52 days	Fri 3/3/34	Sun 4/23/34



HOUMA NAVIGATION CANAL
Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
308	**31 CONSTRUCTION MANAGEMENT**	**434 days**	**Mon 2/14/33**	**Sun 4/23/34**
309	Construction Management	434 days	Mon 2/14/33	Sun 4/23/34
310	**O&M - Contract No. 17**	**630 days**	**Sun 4/24/33**	**Sat 1/13/35**
311	**Channel Improvements (Mile 20.0 to Mile 0.0)**	**630 days**	**Sun 4/24/33**	**Sat 1/13/35**
312	NOTICE TO PROCEED	0 days	Sun 4/23/34	Sun 4/23/34
313	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sun 4/24/33**	**Sun 4/23/34**
314	Planning Engineering and Design	365 days	Sun 4/24/33	Sun 4/23/34
315	**09 CHANNELS**	**265 days**	**Mon 4/24/34**	**Sat 1/13/35**
316	Mobilization / Site Prep (Including Permits and Pipe Laydown)	56 days	Mon 4/24/34	Sun 6/18/34
317	Mechanical Dredging (Flotation Channel)	66 days	Mon 6/19/34	Wed 8/23/34
318	Stone Placement (2 Crews)	46 days	Wed 7/19/34	Sat 9/2/34
319	Confinement Dikes	88 days	Mon 6/19/34	Thu 9/14/34
320	Hydraulic Dredging	98 days	Fri 9/15/34	Thu 12/21/34
321	Demobilization (Includes Pipe Pickup)	23 days	Fri 12/22/34	Sat 1/13/35
322	**31 CONSTRUCTION MANAGEMENT**	**265 days**	**Mon 4/24/34**	**Sat 1/13/35**
323	Construction Management	265 days	Mon 4/24/34	Sat 1/13/35
324	**O&M - Contract No. 18**	**470 days**	**Sat 1/14/34**	**Sat 4/28/35**
325	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Sat 1/14/34**	**Sat 4/28/35**
326	NOTICE TO PROCEED	0 days	Sat 1/13/35	Sat 1/13/35
327	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 1/14/34**	**Sat 1/13/35**
328	Planning Engineering and Design	365 days	Sat 1/14/34	Sat 1/13/35
329	**09 CHANNELS**	**105 days**	**Sun 1/14/35**	**Sat 4/28/35**
330	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sun 1/14/35	Sat 2/24/35
331	Hydraulic Dredging	48 days	Sun 2/25/35	Fri 4/13/35
332	Demobilization (Includes Pipe Pickup)	15 days	Sat 4/14/35	Sat 4/28/35
333	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Sun 1/14/35**	**Sat 4/28/35**
334	Construction Management	105 days	Sun 1/14/35	Sat 4/28/35
335	**O&M - Contract No. 19**	**475 days**	**Sat 4/29/34**	**Thu 8/16/35**
336	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Sat 4/29/34**	**Thu 8/16/35**
337	NOTICE TO PROCEED	0 days	Sat 4/28/35	Sat 4/28/35
338	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 4/29/34**	**Sat 4/28/35**
339	Planning Engineering and Design	365 days	Sat 4/29/34	Sat 4/28/35
340	**09 CHANNELS**	**110 days**	**Sun 4/29/35**	**Thu 8/16/35**
341	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sun 4/29/35	Sat 6/9/35
342	Hydraulic Dredging	51 days	Sun 6/10/35	Mon 7/30/35
343	Demobilization (Includes Pipe Pickup)	17 days	Tue 7/31/35	Thu 8/16/35
344	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Sun 4/29/35**	**Thu 8/16/35**
345	Construction Management	110 days	Sun 4/29/35	Thu 8/16/35
346	**O&M - Contract No. 20**	**470 days**	**Thu 8/17/34**	**Thu 11/29/35**
347	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Thu 8/17/34**	**Thu 11/29/35**
348	NOTICE TO PROCEED	0 days	Thu 8/16/35	Thu 8/16/35
349	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 8/17/34**	**Thu 8/16/35**
350	Planning Engineering and Design	365 days	Thu 8/17/34	Thu 8/16/35
351	**09 CHANNELS**	**105 days**	**Fri 8/17/35**	**Thu 11/29/35**
352	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 8/17/35	Thu 9/27/35
353	Hydraulic Dredging	48 days	Fri 9/28/35	Wed 11/14/35
354	Demobilization (Includes Pipe Pickup)	15 days	Thu 11/15/35	Thu 11/29/35
355	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Fri 8/17/35**	**Thu 11/29/35**
356	Construction Management	105 days	Fri 8/17/35	Thu 11/29/35
357	**O&M Contracting (Cycle 3)**	**2079 days**	**Fri 12/1/34**	**Thu 8/9/40**
358	**O&M - Contract No. 21**	**597 days**	**Fri 12/1/34**	**Sat 7/19/36**
359	**Channel Improvements (Mile 36.3 to Mile 34.0, Mile 24.0 to Mile 22.0 & Mile 22.0 to Mile 20.0 & Mile 11.0 to Mile 0.0)**	**597 days**	**Fri 12/1/34**	**Sat 7/19/36**
360	NOTICE TO PROCEED	0 days	Fri 11/30/35	Fri 11/30/35
361	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Fri 12/1/34**	**Fri 11/30/35**
362	Planning Engineering and Design	365 days	Sat 12/2/34	Sat 12/1/35
363	**09 CHANNELS**	**233 days**	**Fri 11/30/35**	**Sat 7/19/36**
364	Mobilization / Site Prep (Including Permits and Pipe Laydown)	65 days	Fri 11/30/35	Sat 2/2/36
365	Containment Sites	67 days	Sun 2/3/36	Wed 4/8/36
366	Hydraulic Dredging	78 days	Thu 4/10/36	Thu 6/26/36
367	Demobilization (Includes Pipe Pickup)	23 days	Fri 6/27/36	Sat 7/19/36
368	**31 CONSTRUCTION MANAGEMENT**	**233 days**	**Fri 11/30/35**	**Sat 7/19/36**
369	Construction Management	233 days	Fri 11/30/35	Sat 7/19/36
370	**O&M - Contract No. 22**	**470 days**	**Sat 7/21/35**	**Sat 11/1/36**
371	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Sat 7/21/35**	**Sat 11/1/36**
372	NOTICE TO PROCEED	0 days	Sat 7/19/36	Sat 7/19/36
373	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 7/21/35**	**Sat 7/19/36**
374	Planning Engineering and Design	365 days	Sat 7/21/35	Sat 7/19/36
375	**09 CHANNELS**	**105 days**	**Sun 7/20/36**	**Sat 11/1/36**
376	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sun 7/20/36	Sat 8/30/36
377	Hydraulic Dredging	48 days	Sun 8/31/36	Fri 10/17/36
378	Demobilization (Includes Pipe Pickup)	15 days	Sat 10/18/36	Sat 11/1/36
379	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Sun 7/20/36**	**Sat 11/1/36**
380	Construction Management	105 days	Sun 7/20/36	Sat 11/1/36
381	**O&M - Contract No. 23**	**475 days**	**Sat 11/3/35**	**Thu 2/19/37**
382	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Sat 11/3/35**	**Thu 2/19/37**
383	NOTICE TO PROCEED	0 days	Sat 11/1/36	Sat 11/1/36
384	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 11/3/35**	**Sat 11/1/36**
385	Planning Engineering and Design	365 days	Sat 11/3/35	Sat 11/1/36
386	**09 CHANNELS**	**110 days**	**Sun 11/2/36**	**Thu 2/19/37**
387	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sun 11/2/36	Sat 12/13/36
388	Hydraulic Dredging	51 days	Sun 12/14/36	Mon 2/2/37
389	Demobilization (Includes Pipe Pickup)	17 days	Tue 2/3/37	Thu 2/19/37
390	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Sun 11/2/36**	**Thu 2/19/37**
391	Construction Management	110 days	Sun 11/2/36	Thu 2/19/37
392	**O&M - Contract No. 24**	**470 days**	**Thu 2/21/36**	**Thu 6/4/37**
393	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Thu 2/21/36**	**Thu 6/4/37**
394	NOTICE TO PROCEED	0 days	Thu 2/19/37	Thu 2/19/37
395	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 2/21/36**	**Thu 2/19/37**
396	Planning Engineering and Design	365 days	Thu 2/21/36	Thu 2/19/37
397	**09 CHANNELS**	**105 days**	**Fri 2/20/37**	**Thu 6/4/37**
398	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 2/20/37	Thu 4/2/37
399	Hydraulic Dredging	48 days	Fri 4/3/37	Wed 5/20/37
400	Demobilization (Includes Pipe Pickup)	15 days	Thu 5/21/37	Thu 6/4/37
401	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Fri 2/20/37**	**Thu 6/4/37**
402	Construction Management	105 days	Fri 2/20/37	Thu 6/4/37
403	**O&M - Contract No. 25**	**475 days**	**Thu 6/5/36**	**Tue 9/22/37**
404	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Thu 6/5/36**	**Tue 9/22/37**
405	NOTICE TO PROCEED	0 days	Thu 6/4/37	Thu 6/4/37
406	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 6/5/36**	**Thu 6/4/37**
407	Planning Engineering and Design	365 days	Thu 6/5/36	Thu 6/4/37
408	**09 CHANNELS**	**110 days**	**Fri 6/5/37**	**Tue 9/22/37**
409	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 6/5/37	Thu 7/16/37

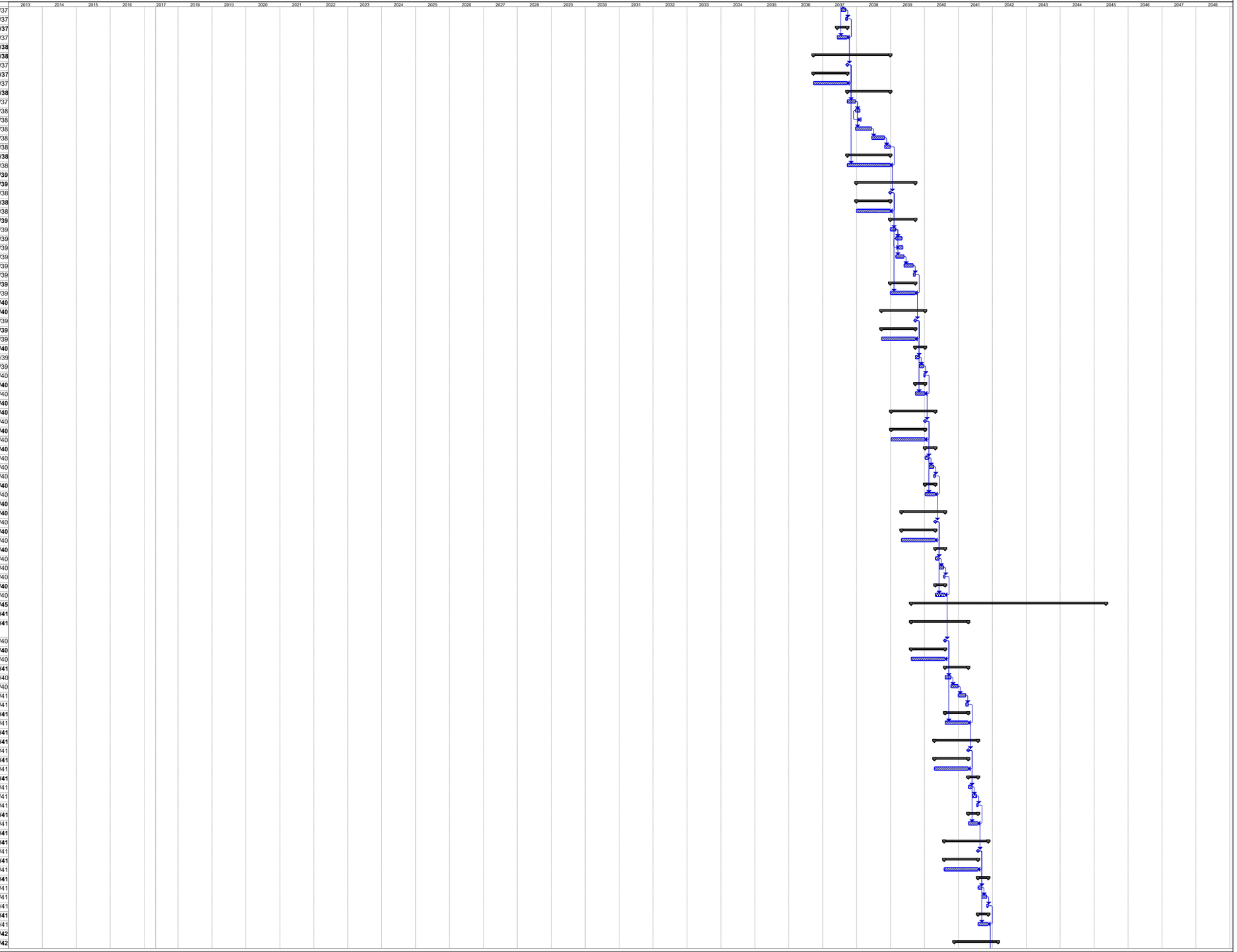


Project: HNC Full Schedule 5-3-17
Date: Wed 5/3/17

Task | Milestone | Summary | Rolled Up Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Inactive Task | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Progress | Deadline

HOUMA NAVIGATION CANAL
Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
410	Hydraulic Dredging	51 days	Fri 7/17/37	Sat 9/5/37
411	Demobilization (Includes Pipe Pickup)	17 days	Sun 9/6/37	Tue 9/22/37
412	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Fri 6/5/37**	**Tue 9/22/37**
413	Construction Management	110 days	Fri 6/5/37	Tue 9/22/37
414	**O&M - Contract No. 26**	**827 days**	**Tue 9/23/36**	**Tue 12/28/38**
415	**Channel Improvements (Mile 36.3 to Mile 20.0 and Mile 0.0 to -3.7)**	**827 days**	**Tue 9/23/36**	**Tue 12/28/38**
416	NOTICE TO PROCEED	0 days	Tue 9/22/37	Tue 9/22/37
417	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 9/23/36**	**Tue 9/22/37**
418	Planning Engineering and Design	365 days	Tue 9/23/36	Tue 9/22/37
419	**09 CHANNELS**	**462 days**	**Wed 9/23/37**	**Tue 12/28/38**
420	Mobilization / Site Prep (Including Permits and Pipe Laydown)	88 days	Wed 9/23/37	Sat 12/19/37
421	Mechanical Dredging (Flotation Channel; 2 Crews)	49 days	Sun 12/20/37	Sat 2/6/38
422	Stone Placement (2 Crews)	16 days	Wed 2/3/38	Thu 2/18/38
423	Confinement Dikes (2 Crews)	173 days	Sun 12/20/37	Thu 6/10/38
424	Hydraulic Dredging	140 days	Fri 6/11/38	Thu 10/28/38
425	Demobilization (Includes Pipe Pickup)	61 days	Fri 10/29/38	Tue 12/28/38
426	**31 CONSTRUCTION MANAGEMENT**	**462 days**	**Wed 9/23/37**	**Tue 12/28/38**
427	Construction Management	462 days	Wed 9/23/37	Tue 12/28/38
428	**O&M - Contract No. 27**	**635 days**	**Tue 12/29/37**	**Sat 9/24/39**
429	**Channel Improvements (Mile 20.0 to Mile 0.0)**	**635 days**	**Tue 12/29/37**	**Sat 9/24/39**
430	NOTICE TO PROCEED	0 days	Tue 12/28/38	Tue 12/28/38
431	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 12/29/37**	**Tue 12/28/38**
432	Planning Engineering and Design	365 days	Tue 12/29/37	Tue 12/28/38
433	**09 CHANNELS**	**270 days**	**Wed 12/29/38**	**Sat 9/24/39**
434	Mobilization / Site Prep (Including Permits and Pipe Laydown)	60 days	Wed 12/29/38	Sat 2/26/39
435	Mechanical Dredging (Flotation Channel)	66 days	Sun 2/27/39	Tue 5/3/39
436	Stone Placement (2 Crews)	46 days	Tue 3/29/39	Fri 5/13/39
437	Confinement Dikes	88 days	Sun 2/27/39	Wed 5/25/39
438	Hydraulic Dredging	99 days	Thu 5/26/39	Thu 9/1/39
439	Demobilization (Includes Pipe Pickup)	23 days	Fri 9/2/39	Sat 9/24/39
440	**31 CONSTRUCTION MANAGEMENT**	**270 days**	**Wed 12/29/38**	**Sat 9/24/39**
441	Construction Management	270 days	Wed 12/29/38	Sat 9/24/39
442	**O&M - Contract No. 28**	**470 days**	**Sat 9/25/38**	**Sat 1/7/40**
443	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Sat 9/25/38**	**Sat 1/7/40**
444	NOTICE TO PROCEED	0 days	Sat 9/24/39	Sat 9/24/39
445	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 9/25/38**	**Sat 9/24/39**
446	Planning Engineering and Design	365 days	Sat 9/25/38	Sat 9/24/39
447	**09 CHANNELS**	**105 days**	**Sun 9/25/39**	**Sat 1/7/40**
448	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sun 9/25/39	Sat 11/5/39
449	Hydraulic Dredging	48 days	Sun 11/6/39	Fri 12/23/39
450	Demobilization (Includes Pipe Pickup)	15 days	Sat 12/24/39	Sat 1/7/40
451	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Sun 9/25/39**	**Sat 1/7/40**
452	Construction Management	105 days	Sun 9/25/39	Sat 1/7/40
453	**O&M - Contract No. 29**	**475 days**	**Sat 1/8/39**	**Thu 4/26/40**
454	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Sat 1/8/39**	**Thu 4/26/40**
455	NOTICE TO PROCEED	0 days	Sat 1/7/40	Sat 1/7/40
456	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 1/8/39**	**Sat 1/7/40**
457	Planning Engineering and Design	365 days	Sat 1/8/39	Sat 1/7/40
458	**09 CHANNELS**	**110 days**	**Sun 1/8/40**	**Thu 4/26/40**
459	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sun 1/8/40	Sat 2/18/40
460	Hydraulic Dredging	51 days	Sun 2/19/40	Mon 4/9/40
461	Demobilization (Includes Pipe Pickup)	17 days	Tue 4/10/40	Thu 4/26/40
462	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Sun 1/8/40**	**Thu 4/26/40**
463	Construction Management	110 days	Sun 1/8/40	Thu 4/26/40
464	**O&M - Contract No. 30**	**470 days**	**Thu 4/28/39**	**Thu 8/9/40**
465	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Thu 4/28/39**	**Thu 8/9/40**
466	NOTICE TO PROCEED	0 days	Thu 4/26/40	Thu 4/26/40
467	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 4/28/39**	**Thu 4/26/40**
468	Planning Engineering and Design	365 days	Thu 4/28/39	Thu 4/26/40
469	**09 CHANNELS**	**105 days**	**Fri 4/27/40**	**Thu 8/9/40**
470	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 4/27/40	Thu 6/7/40
471	Hydraulic Dredging	48 days	Fri 6/8/40	Wed 7/25/40
472	Demobilization (Includes Pipe Pickup)	15 days	Thu 7/26/40	Thu 8/9/40
473	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Fri 4/27/40**	**Thu 8/9/40**
474	Construction Management	105 days	Fri 4/27/40	Thu 8/9/40
475	**O&M Contracting (Cycle 4)**	**2097 days**	**Thu 8/11/39**	**Sun 5/7/45**
476	**O&M - Contract No. 31**	**615 days**	**Thu 8/11/39**	**Tue 4/16/41**
477	**Channel Improvements (Mile 36.3 to Mile 34.0, Mile 24.0 to Mile 22.0 & Mile 22.0 to Mile 20.0 & Mile 11.0 to Mile 0.0)**	**615 days**	**Thu 8/11/39**	**Tue 4/16/41**
478	NOTICE TO PROCEED	0 days	Thu 8/9/40	Thu 8/9/40
479	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 8/11/39**	**Thu 8/9/40**
480	Planning Engineering and Design	365 days	Thu 8/11/39	Thu 8/9/40
481	**09 CHANNELS**	**250 days**	**Fri 8/10/40**	**Tue 4/16/41**
482	Mobilization / Site Prep (Including Permits and Pipe Laydown)	63 days	Fri 8/10/40	Thu 10/11/40
483	Containment Sites	78 days	Fri 10/12/40	Fri 12/28/40
484	Hydraulic Dredging	81 days	Sat 12/29/40	Tue 3/19/41
485	Demobilization (Includes Pipe Pickup)	28 days	Wed 3/20/41	Tue 4/16/41
486	**31 CONSTRUCTION MANAGEMENT**	**250 days**	**Fri 8/10/40**	**Tue 4/16/41**
487	Construction Management	250 days	Fri 8/10/40	Tue 4/16/41
488	**O&M - Contract No. 32**	**470 days**	**Tue 4/17/40**	**Tue 7/30/41**
489	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Tue 4/17/40**	**Tue 7/30/41**
490	NOTICE TO PROCEED	0 days	Tue 4/16/41	Tue 4/16/41
491	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 4/17/40**	**Tue 4/16/41**
492	Planning Engineering and Design	365 days	Tue 4/17/40	Tue 4/16/41
493	**09 CHANNELS**	**105 days**	**Wed 4/17/41**	**Tue 7/30/41**
494	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Wed 4/17/41	Tue 5/28/41
495	Hydraulic Dredging	48 days	Wed 5/29/41	Mon 7/15/41
496	Demobilization (Includes Pipe Pickup)	15 days	Tue 7/16/41	Tue 7/30/41
497	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Wed 4/17/41**	**Tue 7/30/41**
498	Construction Management	105 days	Wed 4/17/41	Tue 7/30/41
499	**O&M - Contract No. 33**	**475 days**	**Tue 7/31/40**	**Sun 11/17/41**
500	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Tue 7/31/40**	**Sun 11/17/41**
501	NOTICE TO PROCEED	0 days	Tue 7/30/41	Tue 7/30/41
502	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 7/31/40**	**Tue 7/30/41**
503	Planning Engineering and Design	365 days	Tue 7/31/40	Tue 7/30/41
504	**09 CHANNELS**	**110 days**	**Wed 7/31/41**	**Sun 11/17/41**
505	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Wed 7/31/41	Tue 9/10/41
506	Hydraulic Dredging	51 days	Wed 9/11/41	Thu 10/31/41
507	Demobilization (Includes Pipe Pickup)	17 days	Fri 11/1/41	Sun 11/17/41
508	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Wed 7/31/41**	**Sun 11/17/41**
509	Construction Management	110 days	Wed 7/31/41	Sun 11/17/41
510	**O&M - Contract No. 34**	**470 days**	**Sun 11/18/40**	**Sun 3/2/42**
511	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Sun 11/18/40**	**Sun 3/2/42**

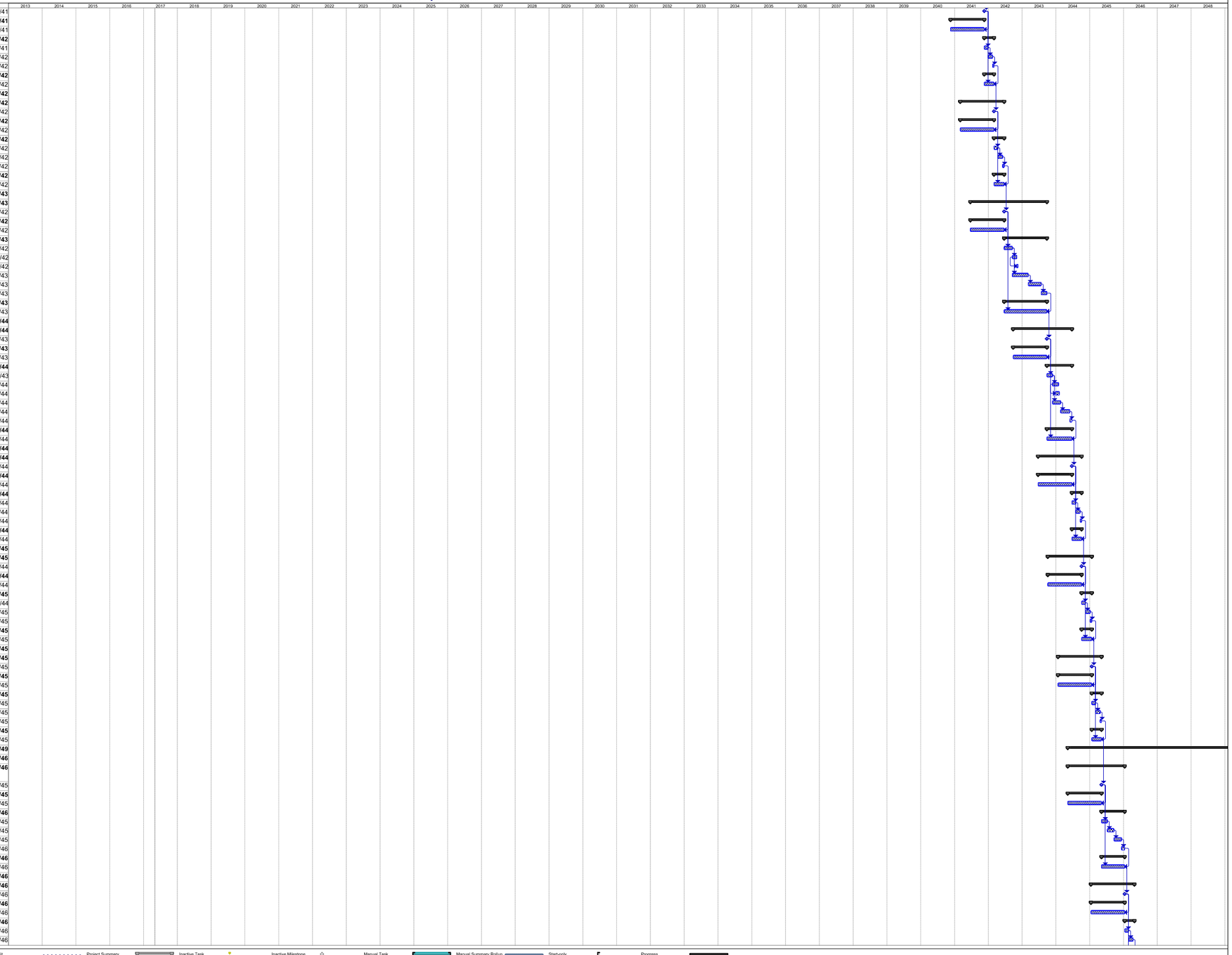


Project: HNC Full Schedule 5-3-17
Date: Wed 5/3/17

Task | Milestone | Summary | Rolled Up Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Inactive Task | Inactive Summary | Inactive Milestone | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Progress | Deadline

HOUMA NAVIGATION CANAL
Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
512	NOTICE TO PROCEED	0 days	Sun 11/17/41	Sun 11/17/41
513	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sun 11/18/40**	**Sun 11/17/41**
514	Planning Engineering and Design	365 days	Sun 11/18/40	Sun 11/17/41
515	**09 CHANNELS**	**105 days**	**Mon 11/18/41**	**Sun 3/2/42**
516	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Mon 11/18/41	Sun 12/29/41
517	Hydraulic Dredging	48 days	Mon 12/30/41	Sat 2/15/42
518	Demobilization (Includes Pipe Pickup)	15 days	Sun 2/16/42	Sun 3/2/42
519	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Mon 11/18/41**	**Sun 3/2/42**
520	Construction Management	105 days	Mon 11/18/41	Sun 3/2/42
521	**O&M - Contract No. 35**	**475 days**	**Sun 3/3/41**	**Fri 6/20/42**
522	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Sun 3/3/41**	**Fri 6/20/42**
523	NOTICE TO PROCEED	0 days	Sun 3/2/42	Sun 3/2/42
524	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sun 3/3/41**	**Sun 3/2/42**
525	Planning Engineering and Design	365 days	Sun 3/3/41	Sun 3/2/42
526	**09 CHANNELS**	**110 days**	**Mon 3/3/42**	**Fri 6/20/42**
527	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Mon 3/3/42	Sun 4/13/42
528	Hydraulic Dredging	51 days	Mon 4/14/42	Tue 6/3/42
529	Demobilization (Includes Pipe Pickup)	17 days	Wed 6/4/42	Fri 6/20/42
530	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Mon 3/3/42**	**Fri 6/20/42**
531	Construction Management	110 days	Mon 3/3/42	Fri 6/20/42
532	**O&M - Contract No. 36**	**827 days**	**Fri 6/21/41**	**Fri 9/25/43**
533	**Channel Improvements (Mile 36.3 to Mile 20.0 and Mile 0.0 to -3.7)**	**827 days**	**Fri 6/21/41**	**Fri 9/25/43**
534	NOTICE TO PROCEED	0 days	Fri 6/20/42	Fri 6/20/42
535	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Fri 6/21/41**	**Fri 6/20/42**
536	Planning Engineering and Design	365 days	Fri 6/21/41	Fri 6/20/42
537	**09 CHANNELS**	**462 days**	**Sat 6/21/42**	**Fri 9/25/43**
538	Mobilization / Site Prep (Including Permits and Pipe Laydown)	88 days	Sat 6/21/42	Tue 9/16/42
539	Mechanical Dredging (Flotation Channel; 2 Crews)	49 days	Wed 9/17/42	Tue 11/4/42
540	Stone Placement (2 Crews)	16 days	Sat 11/1/42	Sun 11/16/42
541	Confinement Dikes (2 Crews)	173 days	Wed 9/17/42	Sun 3/8/43
542	Hydraulic Dredging	140 days	Mon 3/9/43	Sun 7/26/43
543	Demobilization (Includes Pipe Pickup)	61 days	Mon 7/27/43	Fri 9/25/43
544	**31 CONSTRUCTION MANAGEMENT**	**462 days**	**Sat 6/21/42**	**Fri 9/25/43**
545	Construction Management	462 days	Sat 6/21/42	Fri 9/25/43
546	**O&M - Contract No. 37**	**635 days**	**Fri 9/26/42**	**Tue 6/21/44**
547	**Channel Improvements (Mile 20.0 to Mile 0.0)**	**635 days**	**Fri 9/26/42**	**Tue 6/21/44**
548	NOTICE TO PROCEED	0 days	Fri 9/25/43	Fri 9/25/43
549	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Fri 9/26/42**	**Fri 9/25/43**
550	Planning Engineering and Design	365 days	Fri 9/26/42	Fri 9/25/43
551	**09 CHANNELS**	**270 days**	**Sat 9/26/43**	**Tue 6/21/44**
552	Mobilization / Site Prep (Including Permits and Pipe Laydown)	60 days	Sat 9/26/43	Tue 11/24/43
553	Mechanical Dredging (Flotation Channel)	66 days	Wed 11/25/43	Fri 1/29/44
554	Stone Placement (2 Crews)	46 days	Fri 12/25/43	Mon 2/8/44
555	Confinement Dikes	88 days	Wed 11/25/43	Sat 2/20/44
556	Hydraulic Dredging	99 days	Sun 2/21/44	Sun 5/29/44
557	Demobilization (Includes Pipe Pickup)	23 days	Mon 5/30/44	Tue 6/21/44
558	**31 CONSTRUCTION MANAGEMENT**	**270 days**	**Sat 9/26/43**	**Tue 6/21/44**
559	Construction Management	270 days	Sat 9/26/43	Tue 6/21/44
560	**O&M - Contract No. 38**	**470 days**	**Tue 6/23/43**	**Tue 10/4/44**
561	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Tue 6/23/43**	**Tue 10/4/44**
562	NOTICE TO PROCEED	0 days	Tue 6/21/44	Tue 6/21/44
563	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 6/23/43**	**Tue 6/21/44**
564	Planning Engineering and Design	365 days	Tue 6/23/43	Tue 6/21/44
565	**09 CHANNELS**	**105 days**	**Wed 6/22/44**	**Tue 10/4/44**
566	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Wed 6/22/44	Tue 8/2/44
567	Hydraulic Dredging	48 days	Wed 8/3/44	Mon 9/19/44
568	Demobilization (Includes Pipe Pickup)	15 days	Tue 9/20/44	Tue 10/4/44
569	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Wed 6/22/44**	**Tue 10/4/44**
570	Construction Management	105 days	Wed 6/22/44	Tue 10/4/44
571	**O&M - Contract No. 39**	**475 days**	**Tue 10/6/43**	**Sun 1/22/45**
572	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Tue 10/6/43**	**Sun 1/22/45**
573	NOTICE TO PROCEED	0 days	Tue 10/4/44	Tue 10/4/44
574	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 10/6/43**	**Tue 10/4/44**
575	Planning Engineering and Design	365 days	Tue 10/6/43	Tue 10/4/44
576	**09 CHANNELS**	**110 days**	**Wed 10/5/44**	**Sun 1/22/45**
577	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Wed 10/5/44	Tue 11/15/44
578	Hydraulic Dredging	51 days	Wed 11/16/44	Thu 1/5/45
579	Demobilization (Includes Pipe Pickup)	17 days	Fri 1/6/45	Sun 1/22/45
580	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Wed 10/5/44**	**Sun 1/22/45**
581	Construction Management	110 days	Wed 10/5/44	Sun 1/22/45
582	**O&M - Contract No. 40**	**470 days**	**Sun 1/24/44**	**Sun 5/7/45**
583	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Sun 1/24/44**	**Sun 5/7/45**
584	NOTICE TO PROCEED	0 days	Sun 1/22/45	Sun 1/22/45
585	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sun 1/24/44**	**Sun 1/22/45**
586	Planning Engineering and Design	365 days	Sun 1/24/44	Sun 1/22/45
587	**09 CHANNELS**	**105 days**	**Mon 1/23/45**	**Sun 5/7/45**
588	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Mon 1/23/45	Sun 3/5/45
589	Hydraulic Dredging	48 days	Mon 3/6/45	Sat 4/22/45
590	Demobilization (Includes Pipe Pickup)	15 days	Sun 4/23/45	Sun 5/7/45
591	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Mon 1/23/45**	**Sun 5/7/45**
592	Construction Management	105 days	Mon 1/23/45	Sun 5/7/45
593	**O&M Contracting (Cycle 5)**	**2055 days**	**Sun 5/8/44**	**Wed 12/22/49**
594	**O&M - Contract No. 41**	**616 days**	**Sun 5/8/44**	**Sat 1/13/46**
595	**Channel Improvements (Mile 36.3 to Mile 34.0, Mile 24.0 to Mile 22.0 & Mile 22.0 to Mile 20.0 & Mile 11.0 to Mile 0.0)**	**616 days**	**Sun 5/8/44**	**Sat 1/13/46**
596	NOTICE TO PROCEED	0 days	Sun 5/7/45	Sun 5/7/45
597	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sun 5/8/44**	**Sun 5/7/45**
598	Planning Engineering and Design	365 days	Sun 5/8/44	Sun 5/7/45
599	**09 CHANNELS**	**251 days**	**Mon 5/8/45**	**Sat 1/13/46**
600	Mobilization / Site Prep (Including Permits and Pipe Laydown)	63 days	Mon 5/8/45	Sun 7/9/45
601	Containment Sites	72 days	Mon 7/10/45	Tue 9/19/45
602	Hydraulic Dredging	81 days	Wed 9/20/45	Sat 12/9/45
603	Demobilization (Includes Pipe Pickup)	35 days	Sun 12/10/45	Sat 1/13/46
604	**31 CONSTRUCTION MANAGEMENT**	**251 days**	**Mon 5/8/45**	**Sat 1/13/46**
605	Construction Management	251 days	Mon 5/8/45	Sat 1/13/46
606	**O&M - Contract No. 42**	**470 days**	**Sat 1/14/45**	**Sat 4/28/46**
607	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Sat 1/14/45**	**Sat 4/28/46**
608	NOTICE TO PROCEED	0 days	Sat 1/13/46	Sat 1/13/46
609	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 1/14/45**	**Sat 1/13/46**
610	Planning Engineering and Design	365 days	Sat 1/14/45	Sat 1/13/46
611	**09 CHANNELS**	**105 days**	**Sun 1/14/46**	**Sat 4/28/46**
612	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sun 1/14/46	Sat 2/24/46
613	Hydraulic Dredging	48 days	Sun 2/25/46	Fri 4/13/46

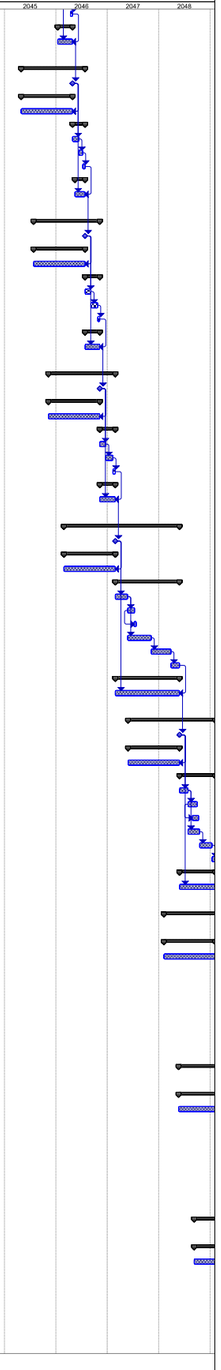


Project: HNC Full Schedule 5-3-17
Date: Wed 5/3/17

Task · Milestone · Summary · Rolled Up Task · Rolled Up Milestone · Rolled Up Progress · Split · External Tasks · Project Summary · Group By Summary · Inactive Task · Inactive Summary · Inactive Milestone · Manual Task · Duration-only · Manual Summary Rollup · Manual Summary · Start-only · Finish-only · Progress · Deadline

HOUMA NAVIGATION CANAL
Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
614	Demobilization (Includes Pipe Pickup)	15 days	Sat 4/14/46	Sat 4/28/46
615	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Sun 1/14/46**	**Sat 4/28/46**
616	Construction Management	105 days	Sun 1/14/46	Sat 4/28/46
617	**O&M - Contract No. 43**	**454 days**	**Sat 4/29/45**	**Thu 7/26/46**
618	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**454 days**	**Sat 4/29/45**	**Thu 7/26/46**
619	NOTICE TO PROCEED	0 days	Sat 4/28/46	Sat 4/28/46
620	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Sat 4/29/45**	**Sat 4/28/46**
621	Planning Engineering and Design	365 days	Sat 4/29/45	Sat 4/28/46
622	**09 CHANNELS**	**89 days**	**Sun 4/29/46**	**Thu 7/26/46**
623	Mobilization / Site Prep (Including Permits and Pipe Laydown)	45 days	Sun 4/29/46	Tue 6/12/46
624	Hydraulic Dredging	27 days	Wed 6/13/46	Mon 7/9/46
625	Demobilization (Includes Pipe Pickup)	17 days	Tue 7/10/46	Thu 7/26/46
626	**31 CONSTRUCTION MANAGEMENT**	**72 days**	**Wed 5/16/46**	**Thu 7/26/46**
627	Construction Management	72 days	Wed 5/16/46	Thu 7/26/46
628	**O&M - Contract No. 44**	**470 days**	**Thu 7/27/45**	**Thu 11/8/46**
629	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Thu 7/27/45**	**Thu 11/8/46**
630	NOTICE TO PROCEED	0 days	Thu 7/26/46	Thu 7/26/46
631	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 7/27/45**	**Thu 7/26/46**
632	Planning Engineering and Design	365 days	Thu 7/27/45	Thu 7/26/46
633	**09 CHANNELS**	**105 days**	**Fri 7/27/46**	**Thu 11/8/46**
634	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 7/27/46	Thu 9/6/46
635	Hydraulic Dredging	48 days	Fri 9/7/46	Wed 10/24/46
636	Demobilization (Includes Pipe Pickup)	15 days	Thu 10/25/46	Thu 11/8/46
637	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Fri 7/27/46**	**Thu 11/8/46**
638	Construction Management	105 days	Fri 7/27/46	Thu 11/8/46
639	**O&M - Contract No. 45**	**475 days**	**Thu 11/9/45**	**Tue 2/26/47**
640	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Thu 11/9/45**	**Tue 2/26/47**
641	NOTICE TO PROCEED	0 days	Thu 11/8/46	Thu 11/8/46
642	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Thu 11/9/45**	**Thu 11/8/46**
643	Planning Engineering and Design	365 days	Thu 11/9/45	Thu 11/8/46
644	**09 CHANNELS**	**110 days**	**Fri 11/9/46**	**Tue 2/26/47**
645	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Fri 11/9/46	Thu 12/20/46
646	Hydraulic Dredging	51 days	Fri 12/21/46	Sat 2/9/47
647	Demobilization (Includes Pipe Pickup)	17 days	Sun 2/10/47	Tue 2/26/47
648	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Fri 11/9/46**	**Tue 2/26/47**
649	Construction Management	110 days	Fri 11/9/46	Tue 2/26/47
650	**O&M - Contract No. 46**	**821 days**	**Tue 2/27/46**	**Wed 5/27/48**
651	**Channel Improvements (Mile 36.3 to Mile 20.0 and Mile 0.0 to -3.7)**	**821 days**	**Tue 2/27/46**	**Wed 5/27/48**
652	NOTICE TO PROCEED	0 days	Tue 2/26/47	Tue 2/26/47
653	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Tue 2/27/46**	**Tue 2/26/47**
654	Planning Engineering and Design	365 days	Tue 2/27/46	Tue 2/26/47
655	**09 CHANNELS**	**456 days**	**Wed 2/27/47**	**Wed 5/27/48**
656	Mobilization / Site Prep (Including Permits and Pipe Laydown)	88 days	Wed 2/27/47	Sat 5/25/47
657	Mechanical Dredging (Flotation Channel; 2 Crews)	49 days	Sun 5/26/47	Sat 7/13/47
658	Stone Placement (2 Crews)	16 days	Wed 7/10/47	Thu 7/25/47
659	Confinement Dikes (2 Crews)	167 days	Sun 5/26/47	Fri 11/8/47
660	Hydraulic Dredging	140 days	Sat 11/9/47	Fri 3/27/48
661	Demobilization (Includes Pipe Pickup)	61 days	Sat 3/28/48	Wed 5/27/48
662	**31 CONSTRUCTION MANAGEMENT**	**456 days**	**Wed 2/27/47**	**Wed 5/27/48**
663	Construction Management	456 days	Wed 2/27/47	Wed 5/27/48
664	**O&M - Contract No. 47**	**619 days**	**Wed 5/29/47**	**Fri 2/5/49**
665	**Channel Improvements (Mile 20.0 to Mile 0.0)**	**619 days**	**Wed 5/29/47**	**Fri 2/5/49**
666	NOTICE TO PROCEED	0 days	Wed 5/27/48	Wed 5/27/48
667	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Wed 5/29/47**	**Wed 5/27/48**
668	Planning Engineering and Design	365 days	Wed 5/29/47	Wed 5/27/48
669	**09 CHANNELS**	**254 days**	**Thu 5/28/48**	**Fri 2/5/49**
670	Mobilization / Site Prep (Including Permits and Pipe Laydown)	60 days	Thu 5/28/48	Sun 7/26/48
671	Mechanical Dredging (Flotation Channel)	66 days	Mon 7/27/48	Wed 9/30/48
672	Stone Placement (2 Crews)	46 days	Wed 8/26/48	Sat 10/10/48
673	Confinement Dikes	83 days	Mon 7/27/48	Sat 10/17/48
674	Hydraulic Dredging	88 days	Sun 10/18/48	Wed 1/13/49
675	Demobilization (Includes Pipe Pickup)	23 days	Thu 1/14/49	Fri 2/5/49
676	**31 CONSTRUCTION MANAGEMENT**	**254 days**	**Thu 5/28/48**	**Fri 2/5/49**
677	Construction Management	254 days	Thu 5/28/48	Fri 2/5/49
678	**O&M - Contract No. 48**	**470 days**	**Fri 2/7/48**	**Fri 5/21/49**
679	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Fri 2/7/48**	**Fri 5/21/49**
680	NOTICE TO PROCEED	0 days	Fri 2/5/49	Fri 2/5/49
681	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Fri 2/7/48**	**Fri 2/5/49**
682	Planning Engineering and Design	365 days	Fri 2/7/48	Fri 2/5/49
683	**09 CHANNELS**	**105 days**	**Sat 2/6/49**	**Fri 5/21/49**
684	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sat 2/6/49	Fri 3/19/49
685	Hydraulic Dredging	48 days	Sat 3/20/49	Thu 5/6/49
686	Demobilization (Includes Pipe Pickup)	15 days	Fri 5/7/49	Fri 5/21/49
687	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Sat 2/6/49**	**Fri 5/21/49**
688	Construction Management	105 days	Sat 2/6/49	Fri 5/21/49
689	**O&M - Contract No. 49**	**475 days**	**Fri 5/22/48**	**Wed 9/8/49**
690	**Channel Improvements (Mile 11.0 to Mile 0.0)**	**475 days**	**Fri 5/22/48**	**Wed 9/8/49**
691	NOTICE TO PROCEED	0 days	Fri 5/21/49	Fri 5/21/49
692	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Fri 5/22/48**	**Fri 5/21/49**
693	Planning Engineering and Design	365 days	Fri 5/22/48	Fri 5/21/49
694	**09 CHANNELS**	**110 days**	**Sat 5/22/49**	**Wed 9/8/49**
695	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Sat 5/22/49	Fri 7/2/49
696	Hydraulic Dredging	51 days	Sat 7/3/49	Sun 8/22/49
697	Demobilization (Includes Pipe Pickup)	17 days	Mon 8/23/49	Wed 9/8/49
698	**31 CONSTRUCTION MANAGEMENT**	**110 days**	**Sat 5/22/49**	**Wed 9/8/49**
699	Construction Management	110 days	Sat 5/22/49	Wed 9/8/49
700	**O&M - Contract No. 50**	**470 days**	**Wed 9/9/48**	**Wed 12/22/49**
701	**Channel Improvements (Mile 0.0 to Mile -3.7)**	**470 days**	**Wed 9/9/48**	**Wed 12/22/49**
702	NOTICE TO PROCEED	0 days	Wed 9/8/49	Wed 9/8/49
703	**30 PLANNING ENGINEERING & DESIGN**	**365 days**	**Wed 9/9/48**	**Wed 9/8/49**
704	Planning Engineering and Design	365 days	Wed 9/9/48	Wed 9/8/49
705	**09 CHANNELS**	**105 days**	**Thu 9/9/49**	**Wed 12/22/49**
706	Mobilization / Site Prep (Including Permits and Pipe Laydown)	42 days	Thu 9/9/49	Wed 10/20/49
707	Hydraulic Dredging	48 days	Thu 10/21/49	Tue 12/7/49
708	Demobilization (Includes Pipe Pickup)	15 days	Wed 12/8/49	Wed 12/22/49
709	**31 CONSTRUCTION MANAGEMENT**	**105 days**	**Thu 9/9/49**	**Wed 12/22/49**
710	Construction Management	105 days	Thu 9/9/49	Wed 12/22/49



Project: HNC Full Schedule 5-3-17
Date: Wed 5/3/17

Task | Milestone | Summary | Rolled Up Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Inactive Task | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | Progress | Deadline

APPENDIX D

Local Market Labor Rates

General Decision Number: LA170011 01/06/2017 LA11

Superseded General Decision Number: LA20160011

State: Louisiana

Construction Type: Heavy Dredging

Counties: Louisiana Statewide.

DREDGING PROJECTS ALONG THE GULF COAST AREA INCLUDING THE MISSISSIPPI RIVER AND ITS TRIBUTARIES TO THE OHIO RIVER

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017

* SULA1994-001 04/01/1994

	Rates	Fringes
Derrick Operator	$ 7.25	
Dozer Operator	$ 7.25	
Dredge 16" and Over		
Deckhand	$ 7.25	
Dredge tender operator	$ 7.25	
Fireman	$ 7.25	
First assistant engineer	$ 7.25	
Leverman	$ 7.25	
Oiler	$ 7.25	
Second assistant engineer	$ 7.25	
Shoreman	$ 7.25	
Third assistant engineer	$ 7.25	
Truck driver	$ 7.25	
Welder	$ 7.25	
Dredge Under 16"		
Deckhand	$ 7.25	
Dredge tender operator	$ 7.25	
Leverman	$ 7.25	
Oiler	$ 7.25	
Welder	$ 7.25	
Hydraulic Dredging		
First cook	$ 7.25	
Handyman	$ 7.25	
Janitor, cabin person	$ 7.25	
Second cook	$ 7.25	

Marsh Buggy Dragline, Oiler.....$ 7.25

Marsh Buggy Dragline, Operator...$ 7.25

Self-Propelled Hopper Dredge,
Drag Tender.....$ 9.70 3.45+a

FOOTNOTE: Fourteen paid vacation days and eight paid holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day & Christmas Day provided the employee has one year of service.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198

indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour

Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: LA170016 01/06/2017 LA16

Superseded General Decision Number: LA20160016

State: Louisiana

Construction Type: Highway

Counties: Lafourche and Terrebonne Counties in Louisiana.

HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017

ENGI0406-001 10/28/2010

	Rates	Fringes
Mechanic	$ 25.40	8.05

SULA2011-004 08/26/2011

	Rates	Fringes
CARPENTER, Includes Form Work	$ 19.13	
CEMENT MASON/CONCRETE FINISHER	$ 18.00	2.94
IRONWORKER, REINFORCING	$ 17.49	
LABORER: Common or General	$ 13.83	2.94
PILEDRIVERMAN	$ 19.00	
Power equipment operators:		
Asphalt Paver	$ 17.20	4.97
Backhoe/Excavator/Trackhoe	$ 20.03	
Broom/Sweeper	$ 15.17	5.15
Bulldozer	$ 16.40	
Crane	$ 25.97	
Grader/Blade	$ 15.88	
Milling Machine	$ 16.63	2.14
Roller (Asphalt and Dirt Compaction)	$ 14.74	4.23
Trencher	$ 14.38	
Truck drivers:		

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     Dump Truck.................$ 12.93            0.18
     Water Truck................$ 13.79
----------------------------------------------------------------

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

================================================================

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017.  If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking.  Additional information
on contractor requirements and worker protections under the EO
is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).


----------------------------------------------------------------


The body of each wage determination lists the classification
and wage rates that have been found to be prevailing for the
cited type(s) of construction in the area covered by the wage
determination. The classifications are listed in alphabetical
order of "identifiers" that indicate whether the particular
rate is a union rate (current union negotiated rate for local),
a survey rate (weighted average rate) or a union average rate
(weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed
in dotted lines beginning with characters other than "SU" or
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PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of
the union which prevailed in the survey for this
classification, which in this example would be Plumbers. 0198
indicates the local union number or district council number
where applicable, i.e., Plumbers Local 0198. The next number,
005 in the example, is an internal number used in processing
the wage determination. 07/01/2014 is the effective date of the
most current negotiated rate, which in this example is July 1,
2014.

Union prevailing wage rates are updated to reflect all rate
changes in the collective bargaining agreement (CBA) governing
this classification and rate.
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Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

APPENDIX E

Construction Cost Estimate Back Up Data

APPENDIX E.1

Designer Provided Relocation Quantities

HOUMA NAVIGATION CANAL
Navigation Improvement Project

Non-Federal Contract No. 1

Pipeline Relocations

DESCRIPTION	DIAMETER (in)	LENGTH (ft)
South LA Electric Coop. submarine Cable (E-1) Approximate River Mile: 36.3		1000
Terrebonne Parish Water Line (W-1) Approximate River Mile: 34.4	12	1000
Charter Communications Submarine Cable (C-1) Approximate River Mile: 34.3	3	1000
Entergy LA. Inc. Submarine Cable (E-2) Approximate River Mile: 34.3		1000
Terrebonne Parish Consol. Gov. Sewer Line (S-1) Approximate River Mile: 34.3	10	900
South LA Electric Coop Assn. Submarine Cable (E-3) Approximate River Mile: 33.4		900
Gulf South P/L Co. Gas Pipeline (P-1) Approximate River Mile: 31.2	20	1100
LA Intrastate Gas Co. Gas Pipeline (P-2) Approximate River Mile: 31.2	16	1100
Enterprise P/L Co. Gas Pipeline (P-3) Approximate River Mile: 29.7	8	900
Louisiana Intrastate Gas Pipeline (P-4) Approximate River Mile: 29.7	10	900
Columbia Gulf Transmission Gas Pipeline (P-5) Approximate River Mile: 27.9	30	900
South LA Electric Coop. Submarine Cable (E-4) Approximate River Mile: 26.5		800

HOUMA NAVIGATION CANAL
Navigation Improvement Project

Non-Federal Contract No. 2

Pipeline Relocations

DESCRIPTION	DIAMETER (in)	LENGTH (ft)
Koch Gateway P/L Co. Gas Pipeline (P-6) Approximate River Mile: 23.5	12	2,100
Terrebonne Parish Sub Cable (E-5) Approximate River Mile: 23.3		800
South LA Electric Cooperative Assn. Sub Cable (E-6) Approximate River Mile: 23.2		900
Gulf South P/L Co. Gas Pipeline (P-7) Approximate River Mile: 22.8	4	1,000
Gulf South P/L Co. Gas Pipeline (P-8) Approximate River Mile: 22.8	6	900
Hope Services Waterlines (Abandoned) (W-2) Approximate River Mile: 21.6	2.33	850
Williams Gas P/L (P-10) Approximate River Mile: 13.3	6	2,100
Tennessee Gas Pipeline Co. (P-11) Approximate River Mile: 12.1	24	1,200
Tennessee Gas Pipeline Co. (P-12) Approximate River Mile: 11.9	26	1,050

HOUMA NAVIGATION CANAL
Navigation Improvement Project

Non-Federal Contract No. 3

Pipeline Relocations

DESCRIPTION	DIAMETER (in)	LENGTH (ft)
Southern Natural Gas Pipeline (P-14) Approximate River Mile: 11.7	6	1,300
Texaco, Inc. Gas Line (P-18) Approximate River Mile: 10.5	2.5	1,400
Chevron-Texaco, Inc. Gas Line (P-19) Approximate River Mile: 10.5	3	1,500
Texaco, Inc. Oil Pipeline (P-15) Approximate River Mile: 10.7	2.5	1,400
Texaco, Inc. Gas Pipeline (P-16) Approximate River Mile: 10.7	2.5	1,500
Texaco, Inc. Gas Pipeline (P-17) Approximate River Mile: 10.7	3	1,500
Texaco Pipelines LLC. Gas Pipeline (P-21) Approximate River Mile: 6.4	8	2,000
Texaco Pipelines LLC. Gas Pipeline (P-22) Approximate River Mile: 6.4	16	2,000
Texaco Pipelines LLC. Gas Pipeline (P-23) Approximate River Mile: 6.4	20	2,000