

Prairie du Pont/Fish Lake Authorized Level Project Cost Estimate

Preliminary Design Phase

Prepared for



Prepared by



August 16, 2017

1. Cost Estimate

Total Cost

Based primarily on previous bid line items from over a dozen local contractors, a preliminary construction cost estimate has been developed for the Prairie du Pont / Fish Lake Authorized Level Design Project. For cost estimating purposes, a contingency of 20% was applied towards all line items. These estimates are preliminary, and represent a planning level estimate. The total construction cost at this time is \$41,752,611, which includes \$32,948,255 in estimated construction, \$1,845,587 in land acquisition, and \$6,958,768 in contingency.

Development of Bid Packages

Amec Foster Wheeler has reviewed the USACE decision segments and recommends that three bid packages for construction be developed. The quantity of seepage berm material is anticipated to be extremely large; therefore, a separate contract to dredge the Mississippi river may be a cost-effective way to obtain the volume of sand that will be required. Because the volume of seepage berm material is so large, having a separate contract for dredging would ensure that the contractor(s) have access to the amount of material required to complete the project, consistency in material between different bid packages and contractors, and relatively close access to the material. However, the cost associated with land acquisition for storing material, among other factors may be too large to make this a worthwhile option.

The three bid packages have been named Bid Package 15, Bid Package 16, and Bid Package 17 which is a continuation of the numbering from the FEMA Certification Design and other Authorized Level Construction packages along both the Wood River and MESD levee systems. The resultant bid packages are as follows:

- ▶ Bid Package 15 includes the portion of improvements along the Prairie du Pont levee system that is within St. Clair County limits (levee station 167+65 to 435+00). This package includes the abandonment of 53 existing relief wells, construction of 10 new seepage berms, 57 new relief wells, and the construction of a new pump levee station at station 209+13.
- ▶ Bid Package 16 includes the portion of improvements on the Prairie du Pont levee system that spans from the St. Clair/Monroe County line south to interstate 255 from (levee station 435+00 to 550+00). This package includes the abandonment of 37 existing relief wells, construction of 7 new seepage berms, and 40 new relief wells.
- ▶ Bid Package 17 includes the portion of improvements on the Fish Lake levee system which spans from interstate 255 to the end of the southern flank (levee station 550+00 to 809+35). This package includes the abandonment of 47 relief wells, construction of 6 new seepage berms, 71 new relief wells, and the construction of a larger pump station at levee station 691+00.

Appendix 1 – Preliminary Cost Estimate

**Southwestern Illinois Levee
Authorized Level Design
Prairie du Pont - Bid Package 15**

<u>NO.</u>	<u>DESCRIPTION</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Quantity</u>	<u>Total</u>
1	Dewatering	LS	\$ -	-	\$ -
2	Erosion & Sediment Control	LS	\$ 200,000.00	1	\$ 200,000
3	Mobilization	LS	\$ 323,300.00	1	\$ 323,300
4	Modify Piezometer - Raise to Grade	EA	\$ 4,210.00	2	\$ 8,420
5	Pump Station~(23,000 gpm)	LS	\$ 1,650,000.00	1	\$ 1,650,000
6	Pvmt - Roads & Trails - Remove & Replace	SY	\$ 75.00	4,500	\$ 337,500
7	Relief Well - Existing - Abandon	EA	\$ 3,500.00	53	\$ 185,500
8	Relief Well - New - Type "D"	VF	\$ 750.00	5,700	\$ 4,275,000
9	Seeding, Mulching and Site Restoration	LS	\$ 200,000.00	1	\$ 200,000
10	Dredge Material	CY	\$ 12.00	336,000	\$ 4,032,000
11	Seepage Berm Material	CY	\$ 15.00	335,739	\$ 5,036,081
12	Utility Relocation	LS	\$ 240,000.00	1	\$ 240,000
13	Land Acquisition - Permanent Easement	AC	\$ 10,000.00	91	\$ 906,216
14	Land Acquisition - Temporary Construction Easement	AC	\$ 1,200.00	45	\$ 54,373
15	Land Acquisition - Other	LS	\$ 350,000.00	1	\$ 350,000
				Subtotal:	\$ 17,798,390
				Contengency (20%):	\$ 3,559,678
				Estimated Construction Cost:	\$ 21,358,068

**Southwestern Illinois Levee
Authorized Level Design
Prairie du Pont - Bid Package 16**

<u>NO.</u>	<u>DESCRIPTION</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Quantity</u>	<u>Total</u>
1	Dewatering	LS	\$ -	-	\$ -
2	Erosion & Sediment Control	LS	\$ 110,000.00	1	\$ 110,000
3	Mobilization	LS	\$ 136,200.00	1	\$ 136,200
4	Modify Piezometer - Raise to Grade	EA	\$ 4,210.00	2	\$ 8,420
5	Pvmt - Roads & Trails - Remove & Replace	SY	\$ 75.00	1,500	\$ 112,500
6	Relief Well - Existing - Abandon	EA	\$ 3,500.00	37	\$ 129,500
7	Relief Well - New - Type "D"	VF	\$ 750.00	4,000	\$ 3,000,000
8	Seeding, Mulching and Site Restoration	LS	\$ 110,000.00	1	\$ 110,000
9	Dredge Material	CY	\$ 12.00	118,000	\$ 1,416,000
10	Seepage Berm Material	CY	\$ 15.00	117,468	\$ 1,762,021
11	Utility Relocation	LS	\$ 160,000.00	1	\$ 160,000
12	Land Acquisition - Permanent Easement	AC	\$ 10,000.00	28	\$ 279,094
13	Land Acquisition - Temporary Construction Easement	AC	\$ 1,200.00	14	\$ 16,746
				Subtotal:	\$ 7,240,481
				Contengency (20%):	\$ 1,448,096
				Estimated Construction Cost:	\$ 8,688,577

**Southwestern Illinois Levee
Authorized Level Design
Fish Lake - Bid Package 17**

<u>NO.</u>	<u>DESCRIPTION</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Quantity</u>	<u>Total</u>
1	Dewatering	LS	\$ -	-	\$ -
2	Erosion & Sediment Control	LS	\$ 140,000.00	1	\$ 140,000
3	Mobilization	LS	\$ 186,600.00	1	\$ 186,600
4	Modify Piezometer - Raise to Grade	EA	\$ 4,210.00	2	\$ 8,420
5	Pump Station~(13,000 gpm)	LS	\$ 910,000.00	1	\$ 910,000
6	Pvmt - Roads & Trails - Remove & Replace	SY	\$ 75.00	600	\$ 45,000
7	Relief Well - Existing - Abandon	EA	\$ 3,500.00	47	\$ 164,500
8	Relief Well - New - Type "D"	VF	\$ 750.00	7,100	\$ 5,325,000
9	Seeding, Mulching and Site Restoration	LS	\$ 140,000.00	1	\$ 140,000
10	Dredge Material	CY	\$ 12.00	89,000	\$ 1,068,000
11	Seepage Berm Material	CY	\$ 15.00	88,553	\$ 1,328,292
12	Utility Relocation	LS	\$ 200,000.00	1	\$ 200,000
13	Land Acquisition - Permanent Easement	AC	\$ 10,000.00	23	\$ 225,621
14	Land Acquisition - Temporary Construction Easement	AC	\$ 1,200.00	11	\$ 13,537
				Subtotal:	\$ 9,754,971
				Contengency (20%):	\$ 1,950,994
				Estimated Construction Cost:	\$ 11,705,965