

INTEGRATED PIPELINE PROJECT MONTHLY EXECUTIVE SUMMARY

July 2017

TARRANT REGIONAL WATER DISTRICT (TRWD) and the **CITY OF DALLAS WATER UTILITIES (DWU)** have partnered to finance, plan, design, construct and operate the Integrated Pipeline (IPL) Project. The IPL Project is an integrated water delivery transmission system connecting Lake Palestine to Lake Benbrook with connections to Cedar Creek and Richland-Chambers Reservoirs integrating TRWD's existing pipelines and creating flexibility in delivery as well as quick response to fluctuating customer water demands. The IPL Project consists of 150 miles of pipeline, three new lake pump stations, and three new booster pump stations delivering a required capacity of 350 million gallons per day (MGD) of raw water to North Central Texas. TRWD and DWU currently serve over 4.1 million residents and the IPL will allow these agencies to continue supporting regional community and economic growth.

IPL PROGRAM MANAGEMENT

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PROGRAM SUPPORT SERVICES

as of 07.31.17

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
PROGRAM WIDE PROFESSIONAL SERVICES		\$133,061,000	\$88,113,666	\$84,028,873
Program Management	Overall program management services for implementation of the IPL Project. (Extension of TRWD staff)	\$45,000,000	\$35,124,711	\$35,124,711
Conceptual Design / Environmental / Permitting	Operations plan & Prepare 404 permit application, Envision Application Completion	\$13,551,000	\$13,467,707	\$13,163,015
Value Engineering	Expert review of design	\$640,000	\$472,248	\$472,248
Surveying and Mapping	Control, property survey, legal descriptions, and Provide SUE Level A Survey, GIS	\$14,600,000	\$11,854,388	\$10,466,937
Geotechnical	Initial Characterization of entire IPL Project	\$12,037,000	\$12,026,275	\$12,026,276
Corrosion Engineering Services	Engineering Corrosion Control	\$3,891,000	\$5,326,362	\$4,068,576
Land, Easement Acquisition, & Support Studies	Right of Entry and Land Acquisition Support Services	\$33,993,000	\$3,464,526	\$3,420,094
		\$3,500,000	\$3,583,743	\$3,402,626
SCADA System	Engineering of SCADA system	\$640,000	\$1,325,096	\$415,780
Microwave System	Engineering of Communications System	\$5,210,000	\$1,468,609	\$1,468,609
DESIGN		\$152,839,000	\$128,140,356	\$115,715,200
Completed		\$101,901,000	\$95,701,764	\$95,153,466
Active		\$24,159,000	\$31,910,169	\$20,561,735
CH2M Hill	Project Operational Information and Operations Manual		\$3,044,922	\$2,671,435
CH2M Hill	Final Conformance of Design of JCC1	\$728,000	\$2,861,718	\$1,546,301
MWH	Final Conformance of Design of Section 9/10/11	\$506,000	\$812,562	\$533,231
Black & Veatch	Final Design of Section 12/13/14 - 28.1 miles of 84 - inch and 108 - inch pipeline	\$11,292,000	\$9,712,413	\$9,651,306
Parsons	Final Conformance of Design of Sections 17/18/Tunnel	\$832,000	\$579,753	\$681,545
Brown & Gay	Final Design of Section 19-1	\$5,770,000	\$7,003,722	\$1,678,056
HDR	Final Design of Section 19-2	\$5,030,000	\$6,989,876	\$3,041,317
Burns & McDonnell Trans. Mgmt.	Development of Transportation Management Plan		\$905,203	\$758,544
Remaining		\$26,778,000	\$528,423	
CONSTRUCTION ADMINISTRATION		\$48,877,000	\$18,634,867	\$10,230,726
CONSTRUCTION / OWNER FURNISHED EQUIPMENT		\$1,729,540,000	\$632,347,958	\$473,474,912
Completed		\$34,078,000	\$25,578,749	\$25,578,749
Active		\$804,518,000	\$606,769,209	\$447,896,163
Pipeline Section 15-1		\$115,112,000	\$94,409,665	\$93,066,335
Garney Construction	Construction of Section 15-1	\$115,112,000	\$94,409,665	\$93,066,335
JB3		\$75,612,000	\$69,252,896	\$49,099,245
MWH Constructors	Construction of JB3 Pump Station	\$51,473,000	\$57,037,594	\$41,723,172
Oncor Electric	Installation of JB3 Substation Transmission Lines	\$1,066,000	\$957,119	\$923,119
Pentair Flow Technologies	Construction of JB3 Pumps, Motors, Drives	\$23,074,000	\$11,258,183	\$6,452,954
Pipeline Section 12/13/MBR/JB4 Bypass		\$167,993,000	\$154,073,634	\$142,522,609
Thalle Midlothian	Construction of Sections 12/13/MBR/JB4 Bypass	\$146,310,000	\$143,382,923	\$132,891,375
BAR Constructors	Construction of Richland-Chambers/Cedar Creek Interconnection Facility	\$21,682,000	\$10,566,482	\$9,507,004
Hilco Electric	Relocation of Electrical Service Lines		\$0	
Hilco Electric	MBR Radio Tower Power		\$33,312	\$33,312
Oncor Electric	Provide Power to IPL 2X12		\$90,918	\$90,918
Pipeline Section 15-2		\$97,217,000	\$53,000,730	\$48,541,453
BAR Constructors	Construction of Section 15-2	\$97,217,000	\$53,000,730	\$48,541,453

PROGRAM SUPPORT SERVICES

as of 07.31.17

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
Pipeline Section 14		\$107,113,000	\$48,323,709	\$43,461,795
Garney Construction	Construction of Section 14	\$107,113,000	\$48,323,709	\$43,461,795
Pipeline Section 17		\$109,944,000	\$78,396,258	\$26,337,222
IPL Partners	Construction of Section 17 Tunnel	\$12,252,000	\$33,067,943	\$15,140,086
Thalle Midlothian	Construction of Sections 17	\$97,692,000	\$45,328,314	\$11,197,136
JCC1		\$42,683,000	\$37,709,676	\$5,866,235
BAR Constructors	Construction of JCC1 Intake	\$21,564,000	\$19,743,852	\$5,866,235
Ebara	Construction of JCC1 Pumps, Motors, Drives	\$17,775,000	\$12,694,890	\$0
Oncor Electric	Construction of JCC1 HV Transmission Lines	\$3,343,000	\$5,270,933	\$0
Pipeline Section 10/11		\$73,678,000	\$57,034,104	\$30,105,199
IPL Partners	Construction of Section 10/11	\$72,362,000	\$43,376,651	\$29,591,197
Oncor Electric	Construction of KBR S1X10 HV Transmission Lines	\$0	\$17,452	\$17,452
BAR Constructors	Construction of KBR S1X10	\$1,317,000	\$13,640,000	\$496,550
Valve Packages		\$15,165,000	\$14,568,537	\$8,896,071
Garney Construction	Valve Package 1 - Section 15-1 Butterfly Valves	\$518,000	\$262,244	\$262,244
Rodney Hunt	Valve Package 2 - Section 15-1 Interconnection Facility Valves	\$474,000	\$733,206	\$664,995
Blackhall Engineering	Valve Package 3 - JB3, Section 15-2, MBR Yard Gate Valves	\$5,500,000	\$6,278,387	\$4,940,197
Crispin Valves	Valve Package 4 - Section 12 RC/CC Interconnection, JB4 Bypass, MBR Yard Butterfly Valves	\$3,999,000	\$2,269,140	\$1,632,612
Crispin Valves	Valve Package 5 - JB3 Butterfly Valves	\$1,249,000	\$1,249,222	\$867,122
Ross Valves	Valve Package 6 - Section 12 RC/CC Interconnection Multi-Orifice Valves	\$715,000	\$526,340	\$352,005
Crispin Valves	Valve Package 8 - Section 10 & 11 Bypass Butterfly Valves	\$1,391,000	\$1,461,040	\$0
Blackhall Engineering	Valve Package 11 - JCC1 Gate Valve	\$1,320,000	\$1,788,958	\$176,896
Remaining		\$890,944,000		
CONSTRUCTION MANAGEMENT		\$65,169,000	\$45,397,801	\$27,187,819
Completed		\$15,777,000	\$15,687,599	\$15,687,599
Active		\$17,665,000	\$29,710,201	\$11,500,220
Remaining		\$31,728,000		
CONSTRUCTION MATERIALS TESTING		\$17,295,000	\$12,763,330	\$5,517,979
Completed		\$267,000	\$264,236	\$264,235
Active		\$7,727,000	\$12,499,094	\$5,253,744
Remaining		\$9,302,000		
ROCI		\$2,575,000	\$23,366,510	\$18,711,479
LAND COST		\$107,384,000	\$57,375,033	\$57,375,033
PROGRAM LEVEL CONTINGENCY		\$83,178,000		
MISCELLANEOUS		\$2,000,000	\$2,318,269	\$2,318,269
GRAND TOTAL		\$2,341,918,000	\$1,008,457,789	\$794,560,292
REMAINING BOND FUNDS				\$455,439,708

Note: Total Bonds issued to date \$1,250,000,000

ACCOMPLISHMENTS

through 08.31.17

PL15-1 (Pipeline Section 15-1 including the S5X15 Richland-Chambers Pipeline Interconnect Facility)

- S5X15 interconnect and the 15-1 pipeline are being operated to provide testing water to the PL15-2 project.
- Installing security gate at entrance from County Road 0190.
- Completed security fencing at S5X15 Interconnect.

JB3RR (Pump Suction Reservoir Grading and Grassing Project)

- Continue irrigation, mowing and maintenance of embankment slopes.

PL12, 13, MBR (Pipeline Sections 12 and 13 combined with the Midlothian Balancing Reservoir)

- All soil cement is complete at MBR.
- Continue installing pipeline ROW fences and gates and fencing at MBR.
- Installed gate valve vault silo for 108" Bypass Gate Valve.

JB3 (250mgd Pump Station expandable to 350mgd)

- Installed bridge crane in pump room.
- Continue Kalwall opaque window installation on pump station.
- Installed main power feeder cables from Substation to Medium Voltage Electrical Switchgear.
- Continue HVAC ductwork installation.
- Received all 8 pump control valves.

PL15-2 (Pipeline Section 15-2 that feeds the JB3 Reservoir)

- Received and installed 108" mainline gate valve.
- Installing ROW fences and gates and installing security fencing at 108" Gate Valve vault location.
- Continue installation of cable mats at creek crossings and Catholic Protection test stations.

S2X12 (Interconnection Facility of IPL Phase 1 to existing Cedar Creek and Richland Chambers Pipelines)

- Completed installation and hydrostatic pressure testing of all facility piping.
- Completed installation of perimeter screen wall panels.

PL14 (Pipeline Section 14 that delivers water from JB3 Pump Station to MBR)

- Continue grouting inside pipe joints and began filling pipeline for hydrostatic pressure testing.
- Continue installing vaults at air valves and blow-offs and continue spoil removal and ROW restoration.

PL17TUN (Trinity River Tunnel on Pipeline Section 17)

- Continue tunneling from west to east; 807 l.f. of tunnel installed.
- Continue excavating east and west portals at ends of tunnel.
- Conducted prove-out demonstration for open-cut portions of pipeline.

JCC1IN (Intake Structure and Wet Well for JCC1 Pump Station at Cedar Creek)

- Completed excavation and placing seal-slab concrete at working slab.
- Continue well-point dewatering of the work area.
- Drilled and placed concrete for 95 piers for lower wing walls and placed concrete for north and south wingwall footings.
- Set and grouted all 7 future pump cans.

PL10, 11 (Pipeline Sections 10 and 11 from the JB4 Pump Station to the KBR Pressure Reduction Facility)

- Installed 4,700 l.f. of pipe in Section 11.
- Completed one gas line tunnel and the FM157 tunnel.
- Clean-up crew working on vault installation and ROW restoration as pipeline sections are completed.
- Installed 1,200' of permanent ROW fencing and 7 ROW gates.

PL17-18 (Pipeline Sections 17 and 18 from east end of PL15-1 to JCC1 Pump Station)

- Completed tunnel under wetlands area and 80% complete on Atmos gas line tunnel.
- Continue installing silt fence, rock dams, etc. in accordance with SWPPP document.
- Clearing and topsoil stripping is 80% complete on Navarro County portion of ROW.
- Continue receiving pipe and installing temporary fences and gates.

KBRPRS / S1X10 (Pressure Reduction Station at Kennedale Balancing Reservoir connecting Pipeline Section 10)

- Excavated and drilled piers for discharge pipe chase.
- Site grading in preparation for drilling piers at S1X10 building.

OFE03 (Owner-Furnished 108" Gate Valves)

- GV#3 delivered and installed at pipeline Section 15-2.

OFE04/05 (Owner-Furnished 54", 60" and 108" Butterfly Valves)

- All valves have been delivered.

OFE06 (Owner-Furnished Multi-Orifice Valves for S2X12)

- Valves delivered and installed, awaiting facility start-up.

OFE07 (Owner-Furnished pumps, motors and variable frequency drives for JB3)

- No additional deliveries to the site or factory testing performed this month.

OFE08 (Owner-Furnished 66", 84" and 108" Butterfly Valves)

- Submittals have been reviewed and production should begin in September.

OFE09 (Owner-Furnished pumps, motors and variable frequency drives for JCC1)

- Reviewing submittals for pump package.

OFE11 (Owner-Furnished 108" Gate Valve)

- Reviewing submittals received from Blackhall.

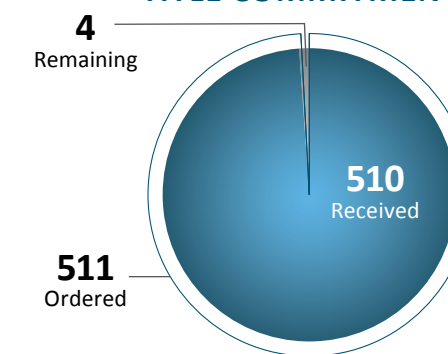
PROJECT SCHEDULE

PROJECT COMPONENTS	2014				2015				2016				2017				2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SECTION 15-1 CONSTRUCTION																				
SECTIONS 12, 13, MBR CONSTRUCTION																				
JB3 CONSTRUCTION																				
SECTION 15-2 CONSTRUCTION																				
SECTION 14 CONSTRUCTION																				
S2X12 (INTERCONNECTION FACILITY) CONSTRUCTION																				
SECTION 17 TUNNEL CONSTRUCTION																				
JCC1 PUMP STATION INTAKE, WET WELL CONSTRUCTION																				
SECTION 10, 11 CONSTRUCTION																				
SECTION 17, 18 CONSTRUCTION																				
KBRPRS/S1X10 (PRESSURE REDUCTION STA.) CONSTRUCTION																				

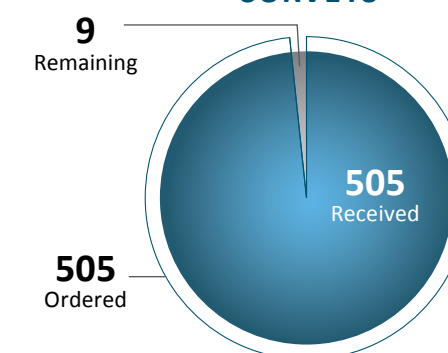
ACTIVITY STATUS

as of 08.31.17

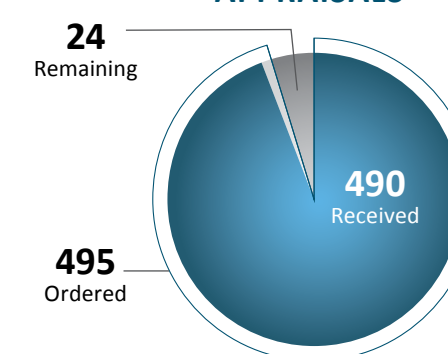
TITLE COMMITMENTS



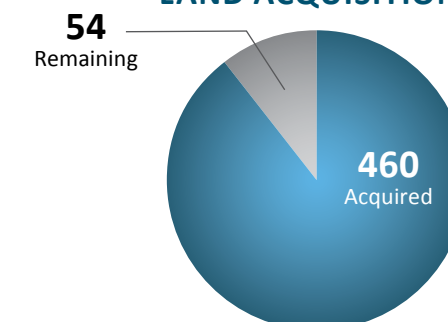
SURVEYS



APPRAISALS



LAND ACQUISITION



Total Parent Parcels: 514



JB3 View of pump room from mezzanine



PL1213MBR Silo over gate valve on bypass line at MBR

M/WBE PARTICIPATION

as of 07.31.17

CONTRACT DESIGN AND CONSTRUCTION	M/WBE & HUB SUB-CONTRACTORS	CONTRACT COMMITMENT		M/WBE HUB INVOICED TO DATE		TOTAL PROJECT COMPLETED TO DATE	
		\$	%	\$	% (PER COMMITMENT)	\$	%
PROGRAM WIDE PROFESSIONAL SERVICES		\$20,085,060	23%	\$19,656,178	98%	\$84,028,873	95%
Program Management		\$6,636,687	19%	\$6,636,687	100%	\$35,124,711	100%
Conceptual Design / Environmental / Permitting		\$2,700,278	20%	\$2,813,857	104%	\$13,163,015	98%
Value Engineering		\$23,178	5%	\$23,178	100%	\$472,248	100%
Surveying and Mapping		\$3,939,403	33%	\$3,831,616	97%	\$10,466,937	88%
Geotechnical		\$3,545,033	29%	\$3,545,033	100%	\$12,026,276	100%
Corrosion Engineering Services		\$1,053,764	20%	\$761,434	72%	\$4,068,576	76%
Land, Easement Acquisition, & Support		\$1,294,837	37%	\$1,520,794	117%	\$3,420,094	99%
Studies		\$41,717	1%	\$41,717	100%	\$3,402,626	95%
SCADA System		\$384,444	29%	\$32,208	8%	\$415,780	31%
Microwave System		\$465,719	32%	\$449,654	97%	\$1,468,609	100%
DESIGN		\$33,817,272	26%	\$30,889,652	91%	\$115,715,200	90%
Completed		\$26,158,041	27%	\$25,980,682	99%	\$95,153,466	99%
Active		\$7,659,231	24%	\$4,908,971	64%	\$20,561,735	64%
CH2M Hill (Ops Manual)	NDM	\$479,674	16%	\$486,259	101%	\$2,671,435	88%
CH2M Hill (JCC1)	JQ, Gupta, APM, HVJ, XENCO	\$721,484	25%	\$425,596	59%	\$1,546,301	54%
MWH	Garzabury, Kevin Sloan	\$226,705	28%	\$136,372	60%	\$533,231	66%
Black & Veatch	BDS, CAS, JQ, TME	\$2,425,531	25%	\$2,577,758	108%	\$9,651,306	100%
Parsons	Criado, EPB, HVJ	\$144,938	25%	\$112,357	78%	\$681,545	118%
Brown & Gay	AZB, TME, Lamb-Star, NDM	\$1,750,930	25%	\$418,590	24%	\$1,678,056	24%
HDR	AZB, Daltech, Word Wizards, Gupta	\$1,747,469	25%	\$636,567	36%	\$3,041,317	44%
Burns & McDonnell Trans. Mgmt.	Lamb-Star Engineering	\$162,500	18%	\$115,472	71%	\$758,544	84%
Remaining		\$0	0%	\$0	0%	\$0	0%
CONSTRUCTION ADMINISTRATION		\$4,533,806	24%	\$2,359,415	52%	\$10,230,726	55%
CONSTRUCTION / OWNER FURNISHED EQUIPMENT		\$80,876,320	19%*	\$74,550,766	92%	\$473,474,912	75%
Completed		\$5,540,970	22%	\$5,540,970	100%	\$25,578,749	100%
Active		\$75,335,350	22%*	\$69,009,796	92%	\$447,896,163	74%
Pipeline Section 15-1		\$9,415,226	28%*	\$6,650,966	71%	\$93,066,335	99%
Garney Construction	Danridge, SYB, Ricochet, Glenko, Carrasco, Cowboy, Gorrondona, Custom Fence, LKT, Astro Johnny, Pam, Father & Son, Bowden's Erosion	\$9,415,226	28%*	\$6,650,966	71%	\$93,066,335	99%
JB3		\$13,580,000	26%*	\$8,470,310	62%	\$49,099,245	71%
MWH Constructors	Statewide, Cowboy, TX Enviro, Champion, Ram Tool, Rent-a-Fence, Soto Steel, A-Star, Ike, Greystone, LKT, Accurate, Green Scaping	\$13,580,000	27%*	\$8,470,310	62%	\$41,723,172	73%
Oncor Electric		\$0	0%	\$0	0%	\$923,119	96%
Pentair Flow Technologies		\$0	0%	\$0	0%	\$6,452,954	57%
Pipeline Section 12/13/MBR/JB4 Bypass		\$22,054,002	24%*	\$20,923,238	95%	\$142,522,609	93%
Thalle Midlothian	LKT, Statewide, Granados, Desert Steel, ETTL, Glenko, A.N.A., Edwards, Buzz, Bradley-Douglas, Pinnacle	\$21,209,810	27%*	\$15,773,243	74%	\$132,891,375	93%
BAR Constructors	Fraire's, DFW Aggregates, Ricochet, MMG, LKT, Brock, Garland Heating & Air, Texas Metal, Buzz, Rangel	\$844,192	8%	\$5,149,995	610%	\$9,507,004	90%

M/WBE PARTICIPATION

as of 07.31.17

CONTRACT DESIGN AND CONSTRUCTION	M/WBE & HUB SUB-CONTRACTORS	CONTRACT COMMITMENT		M/WBE HUB INVOICED TO DATE		TOTAL PROJECT COMPLETED TO DATE	
		\$	%	\$	% (PER COMMITMENT)	\$	%
Hilco Electric		\$0	0%	\$0	0%	\$0	0%
Hilco Electric		\$0	0%	\$0	0%	\$33,312	100%
Oncor Electric		\$0	0%	\$0	0%	\$90,918	100%
Pipeline Section 15-2		\$4,122,200	15%*	\$18,779,386	456%	\$48,541,453	92%
BAR Constructors	Ricochet, Fraire's, DFW Aggregates, Brock, Tidy Toilets, KDAT, Juan Cantu, Buyer's, RAM, Rangel, LKT, Greenscaping, Environmental Safety	\$4,122,200	15%	\$18,779,386	456%	\$48,541,453	92%
Pipeline Section 14		\$6,081,897	22%*	\$6,404,224	105%	\$43,461,795	90%
Garney Construction	AEA, Gorrondona, JC Welding, LKT, Statewide, Bowdens	\$6,081,897	22%	\$6,404,224	105%	\$43,461,795	90%
Pipeline Section 17		\$11,985,025	24%*	\$1,155,618	10%	\$26,337,222	34%
IPL Partners	LKT, Industry Junction, Eagle Aggregate, Suncoast Res, ATS Drilling, RECS, ANA, Alliance, Ram, JC Welding, Luis Moreno	\$6,623,125	24%	\$1,147,709	17%	\$15,140,086	46%
Thalle Midlothian	Fleet Lube, Rambo Controls, AE Trucking, MKI Construction, Stome Water Management, Industry Junction, Ortega Land Clearing	\$5,361,900	25%	\$7,909	0%	\$11,197,136	25%
JCC1		\$1,001,750	4%*	\$4,950,672	494%	\$5,866,235	16%
BAR Constructors	Industry Junction, K&A Steel, Ricochet Fuel, Ricochet Fuel, Tidy Toilets, Buzz Custom Fence	\$1,001,750	6%	\$4,950,672	494%	\$5,866,235	30%
Ebara		\$0	0%	\$0	0%	\$0	0%
Oncor Electric		\$0	0%	\$0	0%	\$0	0%
Pipeline Section 10/11		\$7,095,250	20%*	\$1,675,382	24%	\$30,105,199	53%
IPL Partners	LKT, Industry Junction, Eagle Aggregate, Suncoast Res, ATS Drilling, RECS, ANA, Alliance, Ram, JC Welding, Luis Moreno	\$5,675,000	24%	\$1,675,382	30%	\$29,591,197	68%
Oncor Electric		\$0	0%	\$0	0%	\$17,452	100%
BAR Constructors	Industry Junction, VSG Trucking, Ricochet, MMG Disposal, Garland HVAC, CMC Rebar, Buzz Custom Fence, K&A Steel, Rangle Land Surveying	\$1,420,250	11%	\$0	0%	\$496,550	4%
Valve Packages		\$0	0%	\$0	0%	\$8,896,071	61%
CONSTRUCTION MANAGEMENT		\$18,613,186	41%	\$11,006,995	59%	\$27,187,819	60%
Completed		\$5,928,804	38%	\$5,954,412	100%	\$15,687,599	100%
Active		\$12,684,383	43%	\$5,052,583	40%	\$11,500,220	39%
CONSTRUCTION MATERIALS TESTING		\$7,553,296	59%	\$2,531,727	34%	\$5,517,979	43%
Completed		\$219,036	83%	\$219,036	100%	\$264,235	100%
Active		\$7,334,260	59%	\$2,312,691	32%	\$5,253,744	42%
ROCIPI		\$1,499,307	6%	\$264,577	18%	\$18,711,479	80%
TOTAL		\$166,978,248	25%*	\$141,259,311	85%	\$734,866,989	77%
LAND COST				\$62,900		\$57,375,033	53%
MISCELLANEOUS						\$2,318,269	
GRAND TOTAL		\$166,978,248	25%*	\$141,322,211	85%	\$794,560,292	79%
M/WBE/HUB Invoiced						\$141,322,211	
Grand Total Invoiced						\$794,560,292	
** Exclusions Invoiced						\$273,753,807	
MWBE %						27.14%	

* Denotes participation percentage excluding cost of pipe and owner furnished equipment.

** This number excludes owner furnished equipment, large diameter pipe and land cost \$273,753,807.

PROJECT COMPONENTS

PIPELINE SEGMENTS	CORE PROJECT	DESCRIPTION
Section 9		KBR Turn-Out Tee to existing Benbrook Connection Pipeline (10.6 mi. 84" dia. Pipe + 5 mi. 120" Tunnel)
Section 10	◆	KBR Turn-Out Tee to KBR (2.4 mi. 84" dia. Pipe)
Section 11	◆	JB4 to KBR Turn-Out Tee (10 mi. 84" dia. Pipe)
Section 12	◆	JB4 to existing CC and RC Pipelines (2.2 mi. 108" dia. Pipe)
Section 13	◆	MBR2 (Midlothian Balancing Reservoir) to JB4 (11 mi. 108" dia. Pipe)
Section 14	◆	JB3 to MBR2 (Midlothian Balancing Reservoir) (14.9 mi. 108" dia. Pipe)
Section 15	◆	JB2 to JB3 (28.5 mi 108" dia. Pipe)
Section 16		JRC1 (Joint Richland Chambers Lake Pump Station) to JB2 (12.3 mi. 96" dia. Pipe)
Section 17	◆	Cedar Creek Connection to JB2 (11.2 mi. 108" dia. Pipe)
Section 18	◆	JCC1 (Joint Cedar Creek Lake Pump Station) to Cedar Creek Connection (0.2 mi. 108" dia. Pipe)
Section 19		LP1 (Lake Palestine Pump Station) to Cedar Creek Connection (42.3 mi. 84" dia. Pipe)

PUMP STATIONS	CORE PROJECT	DESCRIPTION
Palestine Pump Station		150 mgd with new intake
Cedar Creek Pump Station	◆	277 mgd with new intake
Richland Chambers Pump Station		250 mgd Ultimate Design Capacity
Booster Pump Stations		Two @ 347 mgd and one @ 197 mgd (◆ one 347 mgd station - JB3)

SUPPORT FACILITIES	CORE PROJECT	DESCRIPTION
Reservoirs	◆	Three reservoirs (80 – 400 mgd) - two for booster pump stations and one for balancing. Two of the reservoirs are core projects – JB3R and MBR
Deep Tunnels		5 mi of 10' dia. tunnel @ Crowley (included in length of Section 9)
Substations & High Voltage Transmission Lines		Six substations and 4 mi. of high voltage transmission lines (◆ two substations)
Microwave Communications and SCADA System	◆	Provides remote operations capability and system monitoring

