



INTEGRATED PIPELINE PROJECT MONTHLY EXECUTIVE SUMMARY

December 2016

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

Tarrant Regional Water District
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OFE03 Witness testing of 108-inch Gate Valve near Birmingham, Alabama. Left to Right: Mike Sylvain, IPL Project Manager; Wesley Cleveland, IPL Executive Director; Shelly Hattan, TRWD Project Engineer; Ed Weaver, IPL Technical Director

PROGRAM SUPPORT SERVICES

as of 12.31.16

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
PROGRAM WIDE PROFESSIONAL SERVICES		\$133,061,000	\$88,359,307	\$83,565,075
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	\$13,472,389	\$13,084,661
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	\$11,858,055	\$10,396,275
Geotechnical	Initial Characterization of entire IPL Project	\$12,037,000	\$12,026,275	\$12,039,115
Corrosion Engineering Services	Engineering Corrosion Control	\$3,891,000	\$5,326,362	\$3,902,269
Land, Easement Acquisition, & Support Studies	Right of Entry and Land Acquisition Support Services	\$33,993,000	\$3,464,526	\$3,418,559
		\$3,500,000	\$3,583,743	\$3,402,626
SCADA System	Engineering of SCADA system	\$640,000	\$1,508,213	\$256,000
Microwave System	Engineering of Communications System	\$5,210,000	\$1,522,785	\$1,468,609
DESIGN		\$152,839,000	\$128,231,192	\$113,101,731
Completed		\$101,901,000	\$96,376,989	\$95,153,466
Active		\$24,159,000	\$31,315,787	\$17,948,265
CH2M Hill	Project Operational Information and Operations Manual		\$3,044,922	\$2,099,398
CH2M Hill	Final Conformance of Design of JCC1	\$728,000	\$2,563,376	\$534,262
MWH	Final Conformance of Design of Section 9/10/11	\$506,000	\$524,313	\$533,231
Black & Veatch	Final Design of Section 12/13/14 - 28.1 miles of 84 - inch and 108 - inch pipeline	\$11,292,000	\$9,704,622	\$9,651,306
Parsons	Final Conformance of Design of Sections 17/18/Tunnel	\$832,000	\$579,753	\$728,154
Brown & Gay	Final Design of Section 19-1	\$5,770,000	\$7,003,722	\$1,244,717
HDR	Final Design of Section 19-2	\$5,030,000	\$6,989,876	\$2,493,244
Burns & McDonnell Trans. Mgmt.	Development of Transportation Management Plan		\$905,203	\$663,954
Remaining		\$26,778,000	\$538,417	
CONSTRUCTION ADMINISTRATION		\$48,877,000	\$18,855,680	\$8,499,849
CONSTRUCTION / OWNER FURNISHED EQUIPMENT		\$1,729,540,000	\$612,668,366	\$370,873,571
Completed		\$3,700,000	\$3,860,755	\$3,644,051
Active		\$834,729,000	\$608,807,611	\$367,229,520
Pipeline Section 15-1		\$115,112,000	\$94,544,582	\$92,340,487
Garney Construction	Construction of Section 15-1	\$115,112,000	\$94,544,582	\$92,340,487
JB3		\$99,592,000	\$85,506,759	\$49,604,164
MWH Constructors	Construction of JB3 Pump Station	\$51,473,000	\$56,673,888	\$25,837,736
ASI Constructors	Construction of JB3 Reservoir	\$16,579,000	\$11,669,898	\$11,669,898
Oncor Electric	Installation of JB3 Substation Transmission Lines	\$1,066,000	\$957,119	\$923,119
Isolux Corsan	Construction of JB3 Substation	\$7,400,000	\$4,947,671	\$4,720,458
Pentair Flow Technologies	Construction of JB3 Pumps, Motors, Drives	\$23,074,000	\$11,258,183	\$6,452,954
Pipeline Section 12/13/MBR/IB4 Bypass		\$167,993,000	\$154,045,171	\$127,512,635
Thalle Midlothian	Construction of Sections 12/13/MBR/IB4 Bypass	\$146,310,000	\$143,270,616	\$119,962,331
BAR Constructors	Construction of Richland-Chambers/Cedar Creek Interconnection Facility	\$21,682,000	\$10,562,326	\$7,426,075
Hilco Electric	Relocation of Electrical Service Lines		\$88,000	
Hilco Electric	MBR Radio Tower Power		\$33,312	\$33,312
Oncor Electric	Provide Power to IPL 2X12		\$90,918	\$90,918

PROGRAM SUPPORT SERVICES

as of 12.31.16

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
Microwave System		\$6,398,000	\$5,376,289	\$3,922,814
Huffman Communications	Construction of Microwave Towers	\$6,398,000	\$5,376,289	\$3,922,814
Pipeline Section 15-2		\$97,217,000	\$52,640,265	\$47,649,849
BAR Constructors	Construction of Section 15-2	\$97,217,000	\$52,640,265	\$47,649,849
Pipeline Section 14		\$107,113,000	\$48,259,273	\$37,499,384
Garney Construction	Construction of Section 14	\$107,113,000	\$48,259,273	\$37,499,384
Pipeline Section 17		\$114,438,000	\$78,312,983	\$2,751,428
IPL Partners	Construction of Section 17 Tunnel	\$12,252,000	\$32,992,000	\$2,751,428
Thalle Midlothian	Construction of Sections 17/18/IB2 Bypass	\$102,186,000	\$45,320,983	\$0
JCC1		\$39,340,000	\$32,436,640	\$757,749
BAR Constructors	Construction of JCC1 Intake	\$21,564,000	\$19,741,750	\$757,749
Ebara	Construction of JCC1 Pumps, Motors, Drives	\$17,775,000	\$12,694,890	\$0
Pipeline Section 10/11		\$72,362,000	\$43,208,500	\$0
IPL Partners	Construction of Section 10/11	\$72,362,000	\$43,208,500	\$0
Valve Packages		\$15,165,000	\$14,477,148	\$5,191,009
Garney Construction	Valve Package 1 - Section 15-1 Butterfly Valves	\$518,000	\$262,244	\$166,900
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	\$6,211,276	\$2,948,306
Crispin Valves	Valve Package 4 - Section 12 RC/CC Interconnection, JB4 Bypass, MBR Yard Butterfly Valves	\$3,999,000	\$2,269,140	\$676,242
Crispin Valves	Valve Package 5 - JB3 Butterfly Valves	\$1,249,000	\$1,224,944	\$382,561
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	\$0
Remaining		\$891,110,000		
CONSTRUCTION MANAGEMENT		\$65,169,000	\$45,397,801	\$21,519,998
Completed		\$15,777,000	\$15,687,599	\$15,687,599
Active		\$17,665,000	\$29,710,201	\$5,832,399
Remaining		\$31,728,000		
CONSTRUCTION MATERIALS TESTING		\$17,295,000	\$12,237,125	\$3,979,260
Completed		\$203,000	\$225,133	\$225,132
Active		\$7,777,000	\$12,011,992	\$3,754,128
Remaining		\$9,315,000		
ROCI		\$2,575,000	\$23,351,087	\$16,909,360
LAND COST		\$107,384,000	\$51,747,433	\$51,747,433
PROGRAM LEVEL CONTINGENCY		\$83,178,000		
MISCELLANEOUS		\$2,000,000	\$2,134,339	\$2,134,339
GRAND TOTAL		\$2,341,918,000	\$982,982,330	\$672,330,618
REMAINING BOND FUNDS				\$577,669,382

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

ACCOMPLISHMENTS

through 01.31.17

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

- Completed grouting annular space at all tunnel crossings.
- Completed installation and backfill of 78" BFVs at S5X15 Interconnect.
- Installed flowmeter at S5X15 Interconnect.

JB3R (Pump Suction Reservoir for the JB3 Pump Station)

- Working on contract closeout documentation.

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

- Placing soil cement on HDPE liner in MBR Cell 1.
- Completing HDPE liner installation in MBR Cell 1.
- Installing anode beds, fences and gates and ROW restoration.

COM01 (Microwave Towers and Communication Facilities for SCADA Control of the IPL)

- Installed and adjusted radio antennas at JB3, MBR, JB4.
- Climatec installed HVAC controls at MBR and S5X15.

JB3 (250mgd Pump Station expandable to 350mgd)

- Installation of structural steel for the Pump Station is 98% complete and precast panels are 50% complete.
- Placed pump room Mezzanine deck.
- Installation of 108-inch yard pipe located on the inlet side of reservoirs is 70% complete.
- Placed Data Center concrete roof.

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

- Placed concrete for top deck of the 108" GV Vault.
- Installing vaults at air valves and blow-offs; installing anode beds and continue ROW restoration.
- Installing cable mats at creek crossings.

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

- Completed building slab and installing RC and CC interconnect piping.
- Began placing concrete for access road.
- Installing electrical motor control center.

JB3HV (High Voltage Substation for the JB3 Pump Station and Data Center)

- Equipment, wiring and aluminum buss is 100% complete and "cold" testing has been completed.
- Fencing and site grading is 95% complete.
- Owner staff training has been completed and energizing of the substation will be mid-February.

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

- Two pipe crews installed a total of approximately 9,000 l.f. of 108" pipe.
- Receiving pit for 135 tunnel pipe is complete.
- Continue installing vaults at air valves and blow-offs and continue spoil removal and ROW restoration.

PL17TUN (Trinity River Tunnel on Pipeline Section 17)

- Began excavation of tunnel launch shaft on west side of the river.
- Clearing ROW and installing SWPPP devices on east side of the river.

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

- Completed work pad and began slurry trench cut-off around "dry" portion of the work site.
- Completed turbidity curtain installation.
- Continue site work and office complex setup.

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

- Complete survey staking of entire ROW length.
- Continue ROW clearing and temporary fence and gate installations.
- Received and strung 4,500 l.f. of 84" pipe.

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

- TRWD Board authorized award of contract to Thalle Midlothian Partners.

OFE03 (Owner-Furnished 108" Gate Valves)

- Completed all factory testing of first 108" GV and began shipping to MBR site.

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

- Successfully completed factory testing of final 108" BFV of OFE04.

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

- All 5 pumps, 4 motors and 4 VFDs have been delivered to JB3.

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

- IPL reps witnessed additional cycle and hydrostatic testing on 108" BFV.

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

- Contract has been awarded to Ebara Corporation.



JB3 Aerial photo of progress at JB3 Pump Station

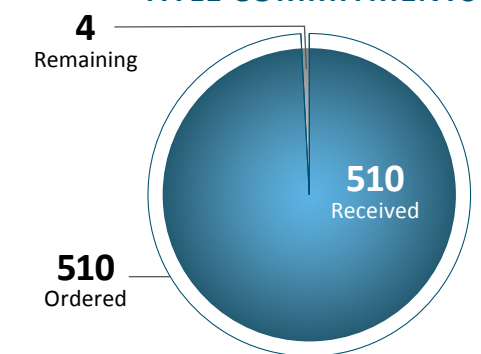


PL1213MBR Installing access ladders and platforms in 108-inch Gate Valve Vault

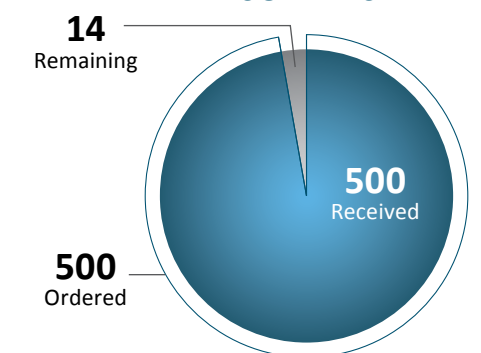
ACTIVITY STATUS

as of 01.31.17

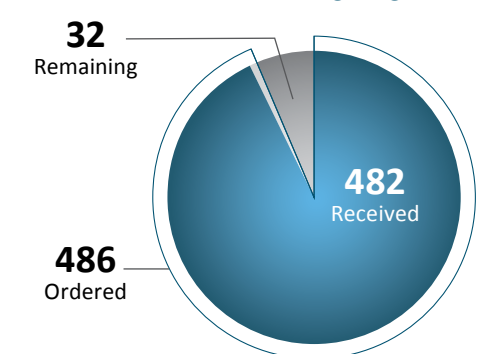
TITLE COMMITMENTS



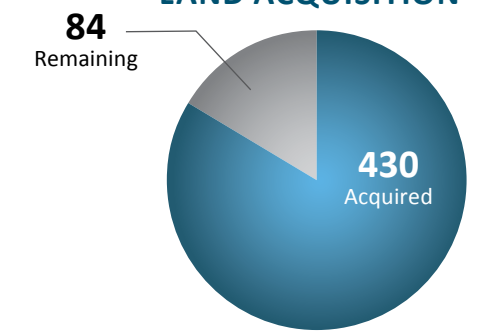
SURVEYS



APPRAISALS



LAND ACQUISITION



Total Parent Parcels: 514

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																				
COMMUNICATION TOWERS CONSTRUCTION																				
SECTIONS 12, 13, MBR CONSTRUCTION																				
JB3 CONSTRUCTION																				
JB3 HIGH VOLTAGE 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																				

M/WBE PARTICIPATION

as of 12.31.16

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		\$19,800,463	22%	\$19,589,179	99%	\$83,565,075	95%
Program Management		\$6,828,350	19%	\$6,636,687	97%	\$35,124,711	100%
Conceptual Design / Environmental / Permitting		\$2,700,278	20%	\$2,786,758	103%	\$13,084,661	97%
Value Engineering		\$0	0%	\$23,178	100%	\$472,248	100%
Surveying and Mapping		\$3,548,416	30%	\$3,819,978	108%	\$10,396,275	88%
Geotechnical		\$3,572,334	30%	\$3,518,305	98%	\$12,039,115	100%
Corrosion Engineering Services		\$1,053,764	20%	\$761,434	72%	\$3,902,269	73%
Land, Easement Acquisition, & Support		\$1,201,457	35%	\$1,519,259	126%	\$3,418,559	99%
Studies		\$41,717	1%	\$41,717	100%	\$3,402,626	95%
SCADA System		\$384,444	25%	\$32,208	8%	\$256,000	17%
Microwave System		\$469,702	31%	\$449,654	96%	\$1,468,609	96%
DESIGN		\$34,093,623	27%	\$30,279,598	89%	\$113,101,731	88%
Completed		\$26,511,305	28%	\$25,980,682	98%	\$95,153,466	99%
Active		\$7,582,319	24%	\$4,298,916	57%	\$17,948,265	57%
CH2M Hill (Ops Manual)	NDM	\$479,674	16%	\$450,719	94%	\$2,099,398	69%
CH2M Hill (JCC1)	JQ, Gupta, APM, HVJ, XENCO	\$644,571	25%	\$104,501	16%	\$534,262	21%
MWH	Garzabury, Kevin Sloan	\$226,705	43%	\$136,372	60%	\$533,231	102%
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%	\$728,154	126%
Brown & Gay	AZB, TME, Lamb-Star, NDM	\$1,750,930	25%	\$316,589	18%	\$1,244,717	18%
HDR	AZB, Daltech, Word Wizards, Gupta	\$1,747,469	25%	\$512,043	29%	\$2,493,244	36%
Burns & McDonnell Trans. Mgmt.	Lamb-Star Engineering	\$162,500	18%	\$88,578	55%	\$663,954	73%
Remaining		\$0	0%	\$0	0%	\$0	0%
CONSTRUCTION ADMINISTRATION		\$4,499,165	24%	\$2,095,847	47%	\$8,499,849	45%
CONSTRUCTION / OWNER FURNISHED EQUIPMENT		\$79,635,274	19%*	\$52,976,920	67%	\$370,873,571	61%
Completed		\$1,354,402	35%	\$1,354,402	100%	\$3,644,051	94%
Active		\$78,280,872	19%*	\$51,622,518	66%	\$367,229,520	60%
Pipeline Section 15-1		\$9,415,226	28%*	\$6,643,128	71%	\$92,340,487	98%
Garney Construction	Danridge, SYB, Ricochet, Glenko, Carrasco, Cowboy, Gorrondona, Custom Fence, LKT, Astro Johnny, Pam, Father & Son, Bowden's Erosion	\$9,415,226	28%*	\$6,643,128	71%	\$92,340,487	98%
JB3		\$16,474,218	25%*	\$5,486,125	33%	\$49,604,164	58%
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%*	\$2,887,209	21%	\$25,837,736	46%
ASI Constructors	Champion Fuel, Desert Steel, Green Scaping	\$1,417,833	13%*	\$1,554,142	110%	\$11,669,898	100%
Isolux Corsan	Dyna Grid	\$1,476,385	30%	\$1,044,774	71%	\$4,720,458	95%
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%*	\$16,784,563	76%	\$127,512,635	83%
Thalle Midlothian	LKT, Statewide, Granados, Desert Steel, ETTL, Glenko, A.N.A., Edwards, Buzz, Bradley-Douglas, Pinnacle	\$21,209,810	27%*	\$12,860,886	61%	\$119,962,331	84%

M/WBE PARTICIPATION

as of 12.31.16

CONTRACT DESIGN AND CONSTRUCTION	M/WBE & HUB SUB-CONTRACTORS	CONTRACT COMMITMENT		M/WBE HUB INVOICED TO DATE		TOTAL PROJECT COMPLETED TO DATE	
		\$	%	\$	% (PER COMMITMENT)	\$	%
BAR Constructors	Fraire's, DFW Aggregates, Ricochet, MMG, LKT, Brock, Garland Heating & Air, Texas Metal, Buzz, Rangel	\$844,192	8%	\$3,923,677	465%	\$7,426,075	70%
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%
Microwave System		\$1,471,554	27%	\$1,073,230	73%	\$3,922,814	73%
Huffman Communications	Ricochet, Edwards, Chaffin Tower	\$1,471,554	27%	\$1,073,230	73%	\$3,922,814	73%
Pipeline Section 15-2		\$4,122,200	16%*	\$16,182,214	393%	\$47,649,849	91%
BAR Constructors	Ricochet, Fraire's, DFW Aggregates, Brock, Tidy Toilets, KDAT, Juan Cantu, Buyer's, RAM, Rangel, LKT, Greenscaping, Environmental Safety	\$4,122,200	16%	\$16,182,214	393%	\$47,649,849	91%
Pipeline Section 14		\$6,081,897	22%*	\$4,710,820	77%	\$37,499,384	78%
Garney Construction	AEA, Gorrondona, JC Welding, LKT, Statewide, Bowdens	\$6,081,897	22%	\$4,710,820	77%	\$37,499,384	78%
Pipeline Section 17		\$11,985,025	24%*	\$0	0%	\$2,751,428	4%
IPL Partners	LKT, Industry Junction, Eagle Aggregate, Suncoast Res, ATS Drilling, RECS, ANA, Alliance, Ram, JC Welding, Luis Moreno	\$6,623,125	24%	\$0	0%	\$2,751,428	8%
Thalle Midlothian	Fleet Lube, Rambo Controls, AE Trucking, MKI Construction, Stome Water Management, Industry Junction, Ortega Land Clearing	\$5,361,900	25%	\$0	0%	\$0	0%
JCC1		\$1,001,750	6%*	\$742,439	74%	\$757,749	2%
BAR Constructors	Industry Junction, K&A Steel, Ricochet Fuel, Ricochet Fuel, Tidy Toilets, Buzz Custom Fence	\$1,001,750	6%	\$742,439	74%	\$757,749	4%
Ebara		\$0	0%	\$0	0%	\$0	0%
Pipeline Section 10/11		\$5,675,000	19%*	\$0	0%	\$0	0%
IPL Partners	LKT, Industry Junction, Eagle Aggregate, Suncoast Res, ATS Drilling, RECS, ANA, Alliance, Ram, JC Welding, Luis Moreno	\$5,675,000	19%	\$0	0%	\$0	0%
Valve Packages		\$0	0%	\$0	0%	\$5,191,009	36%
CONSTRUCTION MANAGEMENT		\$19,172,452	42%	\$8,603,790	45%	\$21,519,998	47%
Completed		\$6,488,069	41%	\$5,954,412	92%	\$15,687,599	100%
Active		\$12,684,383	43%	\$2,649,378	21%	\$5,832,399	20%
CONSTRUCTION MATERIALS TESTING		\$6,723,036	55%	\$1,743,685	26%	\$3,979,260	33%
Completed		\$219,036	97%	\$219,036	100%	\$225,132	100%
Active		\$6,504,000	54%	\$1,524,649	23%	\$3,754,128	31%
ROCIP		\$1,499,307	6%	\$232,163	15%	\$16,909,360	72%
TOTAL		\$165,423,321	23%*	\$115,521,181	70%	\$618,448,845	67%
LAND COST				\$57,650		\$51,747,433	48%
MISCELLANEOUS						\$2,134,339	
GRAND TOTAL		\$165,423,321	25%*	\$115,578,831	70%	\$672,330,618	68%

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

** This number excludes owner furnished equipment, large diameter pipe and land cost \$229,830,007.

M/WBE/HUB Invoiced	\$115,578,831
Grand Total Invoiced	\$672,330,618
* Exclusions Invoiced	\$229,830,007
MWBE %	26.12%

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

