

INTEGRATED PIPELINE PROJECT

MONTHLY EXECUTIVE SUMMARY

December 2019



IPL PROGRAM MANAGEMENT

Tarrant Regional Water District 804 East Northside Drive Fort Worth, TX 76102 817.720.4469 p 817.720.4397 f

iplproject.com

@IPL_Project

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.

PROGRAM SUPPORT SERVICES

as of 11.30.19

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
PROGRAM WIDE PROFESSIONAL SERVI	CES	\$133,062,000	\$88,687,926	\$85,152,851
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	\$13,194,525	\$13,248,699
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	\$10,652,812
Geotechnical	Initial Characterization of entire IPL Project	\$12,037,000	\$12,336,425	\$12,195,421
Corrosion Engineering Services	Engineering Corrosion Control	\$3,891,000	\$5,326,362	\$4,292,969
Land, Easement Acquisition, & Support	Right of Entry and Land Acquisition Support Services	\$33,993,000	\$3,464,526	\$3,432,516
Studies		\$3,500,000	\$3,883,743	\$3,587,584
SCADA System	Engineering of SCADA system	\$640,000	\$1,508,213	\$677,281
Microwave System	Engineering of Communications System	\$5,210,000	\$1,522,785	\$1,468,609
DESIGN		\$152,837,000	\$133,869,306	\$124,269,928
Completed		\$101,901,000	\$97,470,103	\$99,650,358
Active		\$24,158,000	\$35,860,787	\$24,619,570
CH2M Hill	Project Operational Information and Operations Manual		\$6,479,844	\$4,495,446
CH2M Hill	Final Conformance of Design of JCC1	\$728,000	\$3,377,790	\$3,123,474
MWH	Final Conformance of Design of Section 9/10/11	\$506,000	\$812,562	\$555,735
Black & Veatch	Final Design of Section 12/13/14 - 28.1 miles of 84 - inch and 108 - inch pipeline	\$11,292,000	\$9,712,410	\$9,700,648
Parsons	Final Conformance of Design of Sections 17/18/Tunnel	\$832,000	\$579,379	\$681,545
Brown & Gay	Final Design of Section 19-1	\$5,770,000	\$7,003,722	\$2,015,867
HDR	Final Design of Section 19-2	\$5,030,000	\$6,989,876	\$3,180,212
Burns & McDonnell Trans. Mgmt.	Development of Transportation Management Plan	. , ,	\$905,203	\$866,643
Remaining		\$26,778,000	\$538,417	. ,
CONSTRUCTION ADMINISTRATION		\$48,877,000	\$18,550,960	\$13,265,550
CONSTRUCTION / OWNER FURNISHED	EQUIPMENT	\$1,729,540,000	\$713,896,290	\$653,316,815
Completed		\$26,677,000	\$20,593,942	\$20,377,238
Active		\$875,818,000	\$693,302,348	\$632,939,577
Pipeline Section 15-1		\$115,112,000	\$93,687,256	\$93,687,256
Garney Construction	Construction of Section 15-1	\$115,112,000	\$93,687,256	\$93,687,256
JB3		\$83,013,000	\$75,736,958	\$71,030,518
MWH Constructors	Construction of JB3 Pump Station	\$51,473,000	\$57,995,805	\$56,522,095
Oncor Electric	Installation of JB3 Substation Transmission Lines	\$1,066,000	\$957,119	\$923,119
Isolux Corsan	Construction of JB3 Substation	\$7,400,000	\$4,864,888	\$4,864,888
R E Monks	Construction of JB3R Restoration	\$0	\$633,263	\$633,263
Pentair Flow Technologies	Construction of JB3 Pumps, Motors, Drives	\$23,074,000	\$11,285,883	\$8,087,153
peline Section 12/13/MBR/JB4 Bypass		\$167,992,000	\$153,924,053	\$153,532,318
Thalle Midlothian	Construction of Sections 12/13/MBR/JB4 Bypass	\$146,310,000	\$143,614,761	\$143,230,542
BAR Constructors	Construction of Richland-Chambers/Cedar Creek Interconnection Facility	\$21,682,000	\$10,185,063	\$10,177,546
Hilco Electric	Relocation of Electrical Service Lines		\$0	\$0
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 11.30.19

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED	
Pipeline Section 15-2		\$97,217,000	\$50,743,593	\$50,743,593	
BAR Constructors	Construction of Section 15-2	\$97,217,000	\$50,743,593	\$50,743,593	
Pipeline Section 14		\$107,113,000	\$47,130,639	\$47,130,639	
Garney Construction	Construction of Section 14	\$107,113,000	\$47,080,639	\$47,080,639	
Magellan	Captioned Crossing Inspection Section 14	\$0	\$50,000	\$50,000	
Pipeline Section 17		\$109,944,000	\$94,327,511	\$77,779,908	
IPL Partners	Construction of Section 17 Tunnel	\$12,252,000	\$48,500,000	\$34,944,657	
Thalle Midlothian	Construction of Sections 17/18/JB2 Bypass	\$97,692,000	\$45,827,511	\$42,835,251	
JCC1		\$106,582,000	\$105,610,934	\$68,772,122	
BAR Constructors	Construction of JCC1 Intake	\$21,564,000	\$18,960,214	\$18,960,214	
BAR Constructors	Intake Facility & OFE Installation Package 2	\$63,900,000	\$63,374,755	\$33,841,915	
Ebara	Construction of JCC1 Pumps, Motors, Drives	\$17,775,000	\$12,694,890	\$5,902,071	
Lambda Construction	High Voltage		\$5,824,825	\$5,311,672	
Oncor Electric	Construction of JCC1 HV Transmission Lines	\$3,343,000	\$4,756,250	\$4,756,250	
Pipeline Section 10/11		\$73,679,000	\$57,835,110	\$56,514,314	
IPL Partners	Construction of Section 10/11	\$72,362,000	\$43,815,594	\$41,716,801	
Oncor Electric	Construction of KBR S1X10 HV Transmission Lines		\$34,905	\$34,90	
BAR Constructors	Construction of KBR S1X10	\$1,317,000	\$13,984,611	\$14,762,609	
Valve Packages		\$15,166,000	\$14,306,294	\$13,748,908	
Garney Construction	Valve Package 1 - Section 15-1 Butterfly Valves	\$518,000	\$0	\$(
Rodney Hunt	Valve Package 2 - Section 15-1 Interconnection Facility Valves	\$474,000	\$733,206	\$733,206	
Blackhall Engineering	Valve Package 3 - JB3, Section 15-2, MBR Yard Gate Valves	\$5,500,000	\$6,278,388	\$6,228,595	
Crispin Valves	Valve Package 4 - Section 12 RC/CC Interconnection, JB4 Bypass, MBR Yard Butterfly Valves	\$3,999,000	\$2,269,140	\$2,187,448	
Crispin Valves	Valve Package 5 - JB3 Butterfly Valves	\$1,249,000	\$1,249,222	\$1,039,098	
Ross Valves	Valve Package 6 - Section 12 RC/CC Interconnection Multi-Orifice Valves	\$715,000	\$526,340	\$478,838	
Crispin Valves	Valve Package 8 - Section 10 & 11 Bypass Butterfly Valves	\$1,391,000	\$1,461,040	\$1,325,91	
Blackhall Engineering	Valve Package 11 - JCC1 Gate Valve	\$1,320,000	\$1,788,958	\$1,755,807	
Remaining		\$827,045,000			
CONSTRUCTION MANAGEMENT		\$65,170,000	\$51,849,779	\$44,975,144	
Completed		\$15,777,000	\$15,687,599	\$19,747,512	
Active		\$17,665,000	\$36,162,180	\$25,227,632	
Remaining CONSTRUCTION MATERIALS TESTING		\$31,728,000 \$17,296,000	\$12,489,841	\$9,219,787	
Completed		\$17,298,000	\$12,489,841	\$9,219,78	
Active	\$7,791,000	\$12,264,708	\$8,994,65		
Remaining	\$9,302,000				
ROCIP		\$2,575,000	\$31,847,084	\$21,977,43	
LAND COST		\$107,384,000	\$72,735,391	\$72,735,39	
PROGRAM LEVEL CONTINGENCY		\$83,178,000			
MISCELLANEOUS		\$2,000,000	\$2,219,080	\$2,219,080	
GRAND TOTAL		\$2,341,919,000	\$1,126,145,657	\$1,027,131,982	
REMAINING BOND FUNDS				\$222,868,018	

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

ACCOMPLISHMENTS

through 12.31.19

IPL PROGRAM GENERAL OPERATIONAL STATUS

The IPL System is currently able to deliver water from Richland Chambers Reservoir to the cross-connections with the existing Richland Chambers and Cedar Creek pipelines at the S2X12 Interconnect Facility near Joe Pool Lake and the future DWU connection point. The IPL System is also able to deliver water to the Arlington Outlet via the S1X10 Pressure Reduction Station, the KBR Bypass pipeline and the Line J Pipeline.

The IPL pipelines and facilities that have been completed to accomplish this delivery are:

- S5X15 Interconnect
- Pipeline Sections 15-1 and 15-2
- JB3R Suction Reservoir
- JB3 Booster Pump Station
- Pipeline Section 14
- Midlothian Balancing Reservoir
- Pipeline Sections 12 and 13 S2X12 Interconnect Facility
- Pipeline Sections 10 and 11
- S1X10 Pressure Reduction

CURRENT PROJECT UPDATES

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

 Project is Substantially Complete and operational.

JB3 (250mgd Pump Station expandable to 350mgd)

• Project is Substantially Complete and operational.

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

 Project is Substantially Complete and operational.

PL17TUN (Trinity River Tunnel on Pipeline Section 17)

- A total of 1,938' of the tunnel is complete. Performing grout injection for soil stabilization
- ahead of tunneling operation.

JCC1HV (High Voltage Substation for the JCC1 Pump Station at Cedar Creek)

- Oncor completed and energized Mankin Switching Station and the power feeders to JCC1HV.
- Contractor is performing monthly maintenance checks until substation is energized.

JCC1 (Cedar Creek Lake Pump Station)

- Installed 6 of 7 vertical turbine pumps with installation checks by pump manufacturer's factory representatives. Installing pump discharge piping and completed
- 108" yard piping. · Commissioned and load tested the

PROJECT SCHEDULE

JCC1 PUMP STATION INTAKE WET WELL CONSTRUCTION

JCC1 HIGH VOLTAGE SUBSTATION CONSTRUCTION

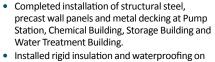
bridge crane.

PROJECT COMPONENTS

SECTION 17, 18 CONSTRUCTION

JCC1 CONSTRUCTION

SECTION 17 TUNNEL CONSTRUCTION



- Pump Station roof.
- Installing HVAC equipment and ductwork throughout the project.
- · Installed VFDs and continued installation of electrical ductbanks and manholes. Continued site paving around Pump Station and

Electrical Room

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

 Project is Substantially Complete and operational

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

- Continued installing ROW fences, gates and cable mats.
- Fine grading ROW and seeded with winter grass mix.

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

• Project is Substantially Complete and

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

 All factory tests have been completed and equipment is currently being installed at the project site

2018



PL1718 Installing turf mat at creek crossing

OFE11 (Owner-Furnished 108" Gate Valve)

• Final gate valve is on site at JCC1

2019

Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4

PL19-1 AND PL19-2 (Pipeline Sections from Lake Palestine to PL17-18 connection)

- Acquisition and topographic surveys are ongoing for re-route areas.
- Geotechnical work is ongoing at TXDOT tunnel crossing locations.

2020

SUBSTANTIALLY COMPLETE

SUBSTANTIALLY COMPLETE

JCC1 Pump Motor Stands



PL17TUN Pre-grouting for soil stabilization

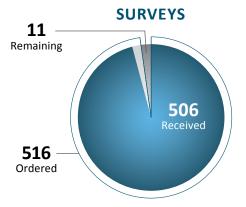
JCC1 Roof installation progress

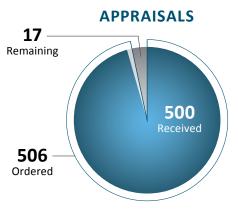
ACTIVITY STATUS

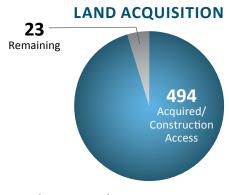
through 12.31.19

TITLE COMMITMENTS









Total Parent Parcels: 517

M/WBE PARTICIPATION as of 11.30.19

M/WBE PARTICIPATION as of 11.30.19

CONTRACT DESIGN	M/WBE & HUB SUB-	CONTRACT COMMITMENT		M/WBE HUB INVOICED TO DATE		TOTAL PROJECT COMPLETED TO DATE	
AND CONSTRUCTION	CONTRACTORS	\$	%	\$	% (PER COMMITMENT)	\$	%
PROGRAM WIDE PROFESSIONAL S	ERVICES	\$20,122,412	23%	\$20,030,887	100%	\$85,152,851	96%
Program Management		\$6,636,687	19%	\$6,636,687	100%	\$35,124,711	100%
Conceptual Design / Environmental	/ Permitting	\$2,644,586	20%	\$2,827,564	107%	\$13,248,699	1009
Value Engineering		\$23,178	5%	\$23,178	100%	\$472,248	1009
Surveying and Mapping		\$3,939,403	33%	\$3,863,616	98%	\$10,652,812	909
Geotechnical		\$3,638,078	29%	\$3,545,033	97%	\$12,195,421	999
Corrosion Engineering Services		\$1,053,764	20%	\$761,434	72%	\$4,292,969	819
Land, Easement Acquisition, & Supp	port	\$1,294,837	37%	\$1,838,072	142%	\$3,432,516	999
Studies		\$41,717	1%	\$41,717	100%	\$3,587,584	929
SCADA System		\$384,444	25%	\$43,932	11%	\$677,281	45
Microwave System		\$465,719	31%	\$449,653	97%	\$1,468,609	96
DESIGN		\$35,085,309	26%	\$33,411,439	95%	\$124,269,928	93
Completed		\$26,558,396	27%	\$27,450,395	103%	\$99,650,358	102
Active		\$8,526,913	24%	\$5,961,044	70%	\$24,619,570	69
CH2M Hill (Ops Manual)	NDM	\$1,063,611	16%	\$685,703	64%	\$4,495,446	69
CH2M Hill (JCC1)	JQ, Gupta, APM, HVJ, XENCO	\$1,005,323	30%	\$1,165,809	116%	\$3,123,474	92
MWH Garzabury, Kevin Sloan		\$226,705	28%	\$136,372	60%	\$555,735	68
Black & Veatch	,		25%	\$2,583,711	107%	\$9,700,648	100
Parsons			25%	\$112,357	78%	\$681,545	1189
Brown & Gay	AZB, TME, Lamb-Star, NDM	\$144,845 \$1,750,930	25%	\$516,093	29%	\$2,015,867	29
HDR	AZB, Daltech, Word Wizards, Gupta	\$1,747,469	25%	\$639,501	37%	\$3,180,212	45
Burns & McDonnell Trans.		\$162,500	18%	\$121.498	75%	\$866,643	96
Mgmt.	Lamb-Star Engineering			, , , , ,			
Remaining		\$0	0%	\$0	0	\$0	0
CONSTRUCTION ADMINISTRATION		\$4,533,900	24%	\$2,998,000	66%	\$13,265,550	72
CONSTRUCTION / OWNER FURNIS	HED EQUIPMENT	\$86,202,724	12%	\$149,181,545	173%	\$653,316,815	92
Completed		\$4,217,818	21%	\$4,091,050	97%	\$20,377,238	99
Active		\$81,984,907	19%	\$145,090,495	177%	\$632,939,577	919
Pipeline Section 15-1		\$9,317,301	29%	\$6,649,736	71%	\$93,687,256	100
Garney Construction	Danridge, SYB, Ricochet, Glenko, Carrasco, Cowboy, Gorrondona, Custom Fence, LKT, Astro Johnny, Pam, Father & Son, Bowden's Erosion	\$9,317,301	29%	\$6,649,736	71%	\$93,687,256	100
JB3		\$15,259,759	26%	\$12,849,193	84%	\$71,030,518	949
Statewide, Cowboy, TX Enviro, Champion, MWH Constructors Ram Tool, Rent-a-Fence, Soto Steel, A-Star, Ike, Greystone, LKT, Accurate, Green Scaping		\$13,809,839	27%	\$11,399,273	83%	\$56,522,095	97
Oncor Electric		\$1,449,920	3%	\$1,449,920	100%	\$4,864,888	8
Isolux Corsan Dyna Grid		\$0	0%	\$0	0%	\$923,119	96
RE Monks		\$0	0%	\$0	0%	\$633,263	139
Pentair Flow Technologies		\$0	0%	\$0	0%	\$8,087,153	72
Pipeline Section 12/13/MBR/JB4 Byp	pass	\$22,074,476	24%	\$22,270,125	101%	\$153,532,318	100
Thalle Midlothian	LKT, Statewide, Granados, Desert Steel, ETTL, Glenko, A.N.A., Edwards, Buzz, Bradley- Douglas, Pinnacle	\$21,260,756	27%	\$16,449,587	77%	\$143,230,542	100
BAR Constructors	Fraire's, DFW Aggregates, Ricochet, MMG, LKT, Brock, Garland Heating & Air, Texas Metal, Buzz, Rangel	\$813,719	8%	\$5,820,538	715%	\$10,177,546	100

CONTRACT DESIGN	M/WBE & HUB SUB-	CONTRACT COMMITMENT		M/WBE HUB INVOICED TO DATE		TOTAL PROJECT COMPLETED TO DATE	
AND CONSTRUCTION	CONTRACTORS	\$	%	\$	% (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		\$3,947,329	16%	\$20,981,334	532%	\$50,743,593	100%
BAR Constructors	Ricochet, Fraire's, DFW Aggregates, Brock, Tidy Toilets, KDAT, Juan Cantu, Buyer's, RAM, Rangel, LKT, Greenscaping, Environmental Safety	\$3,947,329	16%	\$20,981,334	532%	\$50,743,593	100%
Pipeline Section 14		\$5,925,447	22%	\$6,957,922	117%	\$47,130,639	
Garney Construction	AEA, Gorrondona, JC Welding, LKT, Statewide, Bowdens	\$5,925,447	29%	\$6,957,922	117%	\$47,080,639	100%
Magellan	Captioned Crossing Inspection Section 14	\$0	0%	\$0	0%	\$50,000	100%
Pipeline Section 17		\$15,157,296	23%	\$4,995,893	33%	\$77,779,908	82%
IPL Partners	LKT, Industry Junction, Eagle Aggregate, Suncoast Res, ATS Drilling, RECS, ANA, Alliance,Ram, JC Welding, Luis Moreno	\$9,736,346	23%	\$2,305,387	24%	\$34,944,657	72%
Thalle Midlothian	Fleet Lube, Rambo Controls, AE Trucking, MKI Construction, Stome Water Management, Industy Junction, Ortega Land Clearing	\$5,420,950	24%	\$2,690,506	50%	\$42,835,251	93%
JCC1		\$3,088,051		\$52,775,011	1709%	\$68,772,122	
BAR Constructors	Industry Junction, K&A Steel, Ricochet Fuel, Ricochet Fuel, Tidy Toilets, Buzz Custom Fence	\$961,990	6%	\$18,008,980	1872%	\$18,960,214	100%
BAR Constructors	Industry Junction, K&A Steel, Ricochet Fuel, Ricochet Fuel, Tidy Toilets	\$0	0%	\$33,841,915	0%	\$33,841,915	53%
Ebara		\$0	0%	\$0	0%	\$5,902,071	101%
Lambda Construction	High Voltage	\$2,126,061	37%	\$924,115	43%	\$5,311,672	91%
Oncor Electric		\$0	0%	\$0	0%	\$4,756,250	100%
Pipeline Section 10/11		\$7,215,248	20%	\$17,611,281	244%	\$56,514,314	98%
IPL Partners	LKT, Industry Junction, Eagle Aggregate, Suncoast Res, ATS Drilling, RECS, ANA, Alliance,Ram, JC Welding, Luis Moreno	\$5,761,202	24%	\$2,848,672	49%	\$41,716,801	95%
Oncor Electric	, , ,	\$0	0%	\$0	0%	\$34,905	100%
BAR Constructors	Industry Junction,VSG Trucking, Ricochet, MMG Disposal,Garland HVAC,CMC Rebar, Buzz Custum Fence, K&A Steel, Rangle Land Surveying	\$1,454,046	11%	\$14,762,609	1015%	\$14,762,609	106%
Valve Packages		\$0	0%	\$0	0%	\$13,748,908	96%
CONSTRUCTION MANAGEMENT		\$19,155,809	37%	\$17,329,542	90%	\$44,975,144	87%
Completed		\$5,928,803		\$6,436,285		\$19,747,512	126%
Active		\$13,227,006	37%	\$10,893,257	82%	\$25,227,632	70%
CONSTRUCTION MATERIALS TEST	ING	\$7,129,451	57%	\$5,425,036	76%	\$9,219,787	74%
Completed		\$219,036	97%	\$219,036	100%	\$225,132	100%
Active ROCIP		\$6,910,415 \$900,661	56% 3%	\$5,206,000 \$370,813	75% 41%	\$8,994,655 \$21,977,437	73% 69%
TOTAL		\$173,130,266	22%	\$370,813	132%	\$21,977,437	91%
LAND COST		\$173,130,266	0%	\$61,892	0%	\$72,735,391	228%
MISCELLANEOUS		\$0	0%	\$0	0%	\$2,219,080	3%
GRAND TOTAL		\$173,130,266	22%*	\$228,809,155	132%	\$1,027,131,982	
		, , , , ,		M/WBE/HUB Invo			8,809,155
* Denotes participation furnished equipment.	percentage excluding cost of pip	e and owner		Grand Total Invoice	 ed	\$1.02	7,131,982

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

