

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 05.31.18

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED		
PROGRAM WIDE PROFESSIONAL SERVI	CES	\$133,062,000	\$93,595,112	\$84,814,118		
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	\$13,232,902		
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	\$16,483,710	\$10,539,397		
Geotechnical	Initial Characterization of entire IPL Project	\$12,037,000	\$12,336,425	\$12,191,092		
Corrosion Engineering Services	Engineering Corrosion Control	\$3,891,000	\$5,326,362	\$4,226,490		
Land, Easement Acquisition, & Support	Right of Entry and Land Acquisition Support Services	\$33,993,000	\$3,464,526	\$3,424,068		
Studies		\$3,500,000	\$3,883,743	\$3,587,584		
SCADA System	Engineering of SCADA system	\$640,000	\$1,508,213	\$547,016		
Microwave System	Engineering of Communications System	\$5,210,000	\$1,522,785	\$1,468,609		
DESIGN		\$152,837,000	\$133,181,683	\$118,471,023		
Completed		\$101,901,000	\$97,470,103	\$96,087,135		
Active		\$24,158,000	\$35,173,164	\$22,383,889		
CH2M Hill	Project Operational Information and Operations Manual		\$6,308,293	\$3,184,656		
CH2M Hill	Final Conformance of Design of JCC1	\$728,000	\$2,861,718	\$2,362,955		
MWH	Final Conformance of Design of Section 9/10/11	\$506,000	\$812,562	\$535,921		
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	\$1,905,316		
HDR	Final Design of Section 19-2	\$5,030,000	\$6,989,876	\$3,170,308		
Burns & McDonnell Trans. Mgmt.	Development of Transportation Management Plan		\$905,203	\$842,540		
Remaining		\$26,778,000	\$538,417			
CONSTRUCTION ADMINISTRATION		\$48,877,000	\$18,550,960	\$12,302,019		
CONSTRUCTION / OWNER FURNISHED	EQUIPMENT	\$1,729,540,000	\$636,719,966	\$553,711,317		
Completed		\$26,677,000	\$20,634,788	\$20,418,083		
Active		\$811,918,000	\$616,085,178	\$533,293,234		
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	\$75,426,047	\$65,053,072		
MWH Constructors	Construction of JB3 Pump Station	\$51,473,000	\$57,684,894	\$51,142,843		
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	\$7,488,959		
Pipeline Section 12/13/MBR/JB4 Bypass		\$167,992,000	\$154,274,263	\$151,477,812		
Thalle Midlothian	Construction of Sections 12/13/MBR/JB4 Bypass	\$146,310,000	\$143,534,470	\$141,303,930		
BAR Constructors	Construction of Richland-Chambers/Cedar Creek Interconnection Facility	\$21,682,000	\$10,615,564	\$10,049,653		
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 05.31.18

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
Pipeline Section 15-2		\$97,217,000	\$50,743,593	\$50,572,476
BAR Constructors	Construction of Section 15-2	\$97,217,000	\$50,743,593	\$50,572,476
Pipeline Section 14		\$107,113,000	\$48,397,992	\$46,500,531
Garney Construction	Construction of Section 14	\$107,113,000	\$48,347,992	\$46,450,531
Magellan	Captioned Crossing Inspection Section 14	\$0	\$50,000	\$50,000
Pipeline Section 17		\$109,944,000	\$78,734,525	\$53,078,807
IPL Partners	Construction of Section 17 Tunnel	\$12,252,000	\$33,087,198	\$19,946,069
Thalle Midlothian	Construction of Sections 17/18/JB2 Bypass	\$97,692,000	\$45,647,327	\$33,132,738
JCC1		\$42,682,000	\$43,394,113	\$15,437,797
BAR Constructors	Construction of JCC1 Intake	\$21,564,000	\$19,942,714	\$12,991,436
Ebara	Construction of JCC1 Pumps, Motors, Drives	\$17,775,000	\$12,694,890	\$603,745
Lambda Construction	High Voltage		\$5,485,575	\$1,842,61
Oncor Electric	Construction of JCC1 HV Transmission Lines	\$3,343,000	\$5,270,933	\$(
Pipeline Section 10/11		\$73,679,000	\$57,121,096	\$45,626,630
IPL Partners	Construction of Section 10/11	\$72,362,000	\$43,416,722	\$39,501,298
Oncor Electric	Construction of KBR S1X10 HV Transmission Lines		\$17,452	\$17,45
BAR Constructors	Construction of KBR S1X10	\$1,317,000	\$13,686,921	\$6,107,88
Valve Packages		\$15,166,000	\$14,306,294	\$11,858,840
Garney Construction	Valve Package 1 - Section 15-1 Butterfly Valves	\$518,000	\$0	\$1
Rodney Hunt	Valve Package 2 - Section 15-1 Interconnection Facility Valves	\$474,000	\$733,206	\$733,200
Blackhall Engineering	Valve Package 3 - JB3, Section 15-2, MBR Yard Gate Valves	\$5,500,000	\$6,278,388	\$6,107,83
Crispin Valves	Valve Package 4 - Section 12 RC/CC Interconnection, JB4 Bypass, MBR Yard Butterfly Valves	\$3,999,000	\$2,269,140	\$1,970,90
Crispin Valves	Valve Package 5 - JB3 Butterfly Valves	\$1,249,000	\$1,249,222	\$1,039,09
Ross Valves	Valve Package 6 - Section 12 RC/CC Interconnection Multi-Orifice Valves	\$715,000	\$526,340	\$352,00
Crispin Valves	Valve Package 8 - Section 10 & 11 Bypass Butterfly Valves	\$1,391,000	\$1,461,040	\$699,51
Blackhall Engineering	Valve Package 11 - JCC1 Gate Valve	\$1,320,000	\$1,788,958	\$956,28
Remaining		\$890,945,000		
CONSTRUCTION MANAGEMENT		\$65,170,000	\$64,762,055	\$35,249,06
Completed		\$15,777,000	\$30,765,854	\$16,698,87
Active		\$17,665,000	\$33,996,201	\$18,550,18
Remaining		\$31,728,000		
CONSTRUCTION MATERIALS TESTING		\$17,296,000	\$12,013,590	\$7,162,30
Completed		\$203,000	\$225,133	\$225,13
Active		\$7,791,000	\$11,788,457	\$6,937,17
Remaining		\$9,302,000		
ROCIP		\$2,575,000	\$23,351,087	\$19,735,57
LAND COST		\$107,384,000	\$65,280,067	\$65,280,06
PROGRAM LEVEL CONTINGENCY		\$83,178,000		
MISCELLANEOUS		\$2,000,000	\$3,736,346	\$3,736,340
GRAND TOTAL		\$2,341,919,000	\$1,051,190,867	\$900,461,834
REMAINING BOND FUNDS				\$349,538,166

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

ACCOMPLISHMENTS

through 06.30.18

JB3RR (Pump Suction Reservoir Grading and Grassing Project)

Grass coverage to be inspected again in August to determine contract

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

- · Water and mow grass on MBR embankment and ROW
- Performing work from punch list for ROW, vaults and gates
- · Performing clean up along right of way
- Repaired Baucom Road
- Commissioned 108" Gate Valves

JB3 (250mgd Pump Station expandable to 350mgd)

- Commissioned pump motor coolant systems
- · Began uncoupled testing of pumps.
- Initial commissioning of HVAC system for electric room.
- Began installation of gate valve vault deck.
- Continued installing yard sump pump station and valve vault mechanical.
- Set Water Quality Analysis Station #1.
- Began pulling power and signal cables to Water Quality Stations.
- Began installation of power and signal cables to radio tower.
- · Continued installation of perimeter fence.

PL15-2 (Pipeline Section15-2 that feeds the JB3 Reservoir)

- Completed commissioning of 108" Gate Valve.
- Final Completion and Contract Closeout is on the agenda for July BOD meeting.

S2X12 (Interconnection Facility of IPL Phase 1 to existing Cedar Creek and Richland Chambers Pipelines) • Completed landscaping installation and items required by City of Grand Prairie for

Certificate of Occupancy.

• Final Completion and Contract Closeout is on the agenda for July BOD meeting.

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

- Continue ROW cleanup, fence/gate and cable mat installation and continue seeding and sprigging grass.
- Certificate of Substantial Completion and Reduction of Retainage is on the agenda for July BOD meeting.

PL17TUN (Trinity River Tunnel on Pipeline Section 17)

IPL Partners continue preparing engineered tunnel plan for OPT review.

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

- Completed all drilled piers for wingwalls and project.
- Began placing bulkhead gate and blank screen panel guides in preparation for secondary pours.
- Began dredging operations for the main channel in the lake.
- Placed slabs for both the fourth level of slabs on the north and south wingwall.
- Installed geotextile fabric and rock riprap for the channel on north and south side
- Began backfilling structure and wingwalls.
- Removed all temporary shoring towers from wet well.

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

- OPT attended the Transformer Testing in Mexico City.
- Installed ductbank JCC1-B.
- Continued installation of transformers, switches and other appurtenances
- · Continued installing aluminum buss.
- Completed structural steel for grating on transformer pad #1 and #2.
- Completed installation of grating.

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

- Preparing for filling and hydrostatic testing of completed pipeline.
- · Completed installing cable mats for creek crossings.
- Testing anode beds and AC mitigation mats.
- · Completed installation of permanent driveways.

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

- Installed 5500' of 108" pipe.
- Installing anodes and cathodic protection in Henderson County
- Hauling spoils off ROW and replacing topsoil at ROW.
- Placing concrete at 108" valve vault.

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

- Completed Venturi Meter Vaults and installed Venturi Flowmeters.
- Placed foundation slab for standby generator.
- Installed header piping in chase.
- Installing electrical, instrumentation and control ductbanks.

OFE03 (Owner-Furnished 108" Gate Valves)

GV#5 being assembled for final, factory testing.

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

· All valves have been delivered and installed

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

· Valves delivered, installed and commissioned.

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

· Pentair and Siemens Field Service Technicians on site for uncoupled motor

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

• BFVs for S1X10 have been delivered.

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

 OPT reps were in Viet Nam for factory witness testing of pump can and pump bowl coating operations.

OFE11 (Owner-Furnished 108" Gate Valve) · Castings have been inspected and approved.

JCC1HV Grating above electrical chase at transformer pad



PL1718 Verifying top of pipe elevation

SURVEYS 10 Remaining 507 Received 507 Ordered

ACTIVITY STATUS

7

Remaining

511

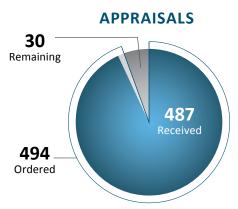
Ordered

TITLE COMMITMENTS

510

Received

through 06.30.18





PROJECT SCHEDULE

PROJECT COMPONENTS		2014			2015			2016			2017				2018					
		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																_	_			

M/WBE PARTICIPATION

as of 05.31.18

TOTAL PROJECT CONTRACT M/WBE | HUB **COMPLETED TO** COMMITMENT **INVOICED TO DATE CONTRACT DESIGN** M/WBE & HUB SUB-DATE AND CONSTRUCTION **CONTRACTORS** (PER PROGRAM WIDE PROFESSIONAL SERVICES \$21,848,474 23% \$19,978,578 91% \$84.814.118 Program Management \$6,636,687 \$6,636,687 \$35,124,711 \$2.826.430 \$13.232.902 Conceptual Design / Environmental / Permitting \$2,700,278 20% 105% Value Engineering \$23,178 \$23,178 100% \$472,248 Surveying and Mapping \$5,609,772 34% \$3,831,616 68% \$10,539,397 649 Geotechnical \$3,638,078 29% \$3,545,033 97% \$12,191,092 \$1,053,764 \$761,434 \$4,226,490 **Corrosion Engineering Services** 20% 72% Land, Easement Acquisition, & Support \$1,294,837 37% \$1,829,624 141% \$3,424,068 \$3,587,584 Studies \$41,717 1% \$41,717 100% 929 **SCADA System** \$384,444 25% \$33,205 9% \$547,016 \$465,719 \$449,653 97% Microwave System 31% \$1,468,609 DESIGN \$34,772,306 26% \$31,766,319 \$118,471,023 \$96,087,135 CH2M Hill (Ops Manual) \$1,034,447 16% \$516,909 \$3,184,656 JQ, Gupta, APM, HVJ, XENCO CH2M Hill (JCC1) \$721,484 25% \$862,007 119% \$2.362.955 839 MWH \$226,705 28% \$136,372 60% \$535,921 Black & Veatch BDS, CAS, JQ, TME \$2,425,530 25% \$2,583,711 107% \$9,700,648 Parsons Criado, EPB, HVJ \$144,845 25% \$112,357 \$681,545 118% Brown & Gay AZB, TME, Lamb-Star, NDM \$1,750,930 25% \$477,623 27% \$1,905,316 HDR AZB, Daltech, Word Wizards, Gupta \$1,747,469 25% \$639,501 37% \$3,170,308 45% **Burns & McDonnell Trans.** Lamb-Star Engineering \$162,500 \$115,472 \$842,540 18% 71%

CONSTRUCTION ADMINISTRATION \$4,533,900 \$2,721,605 \$12,302,019 CONSTRUCTION / OWNER FURNISHED EQUIPMENT \$83,075,244 \$97,191,182 \$553,711,317 13% 117% \$4,091,050 \$20,418,083 Active \$78,823,116 \$93,100,132 \$533,293,234 Danridge, SYB, Ricochet, Glenko, Carrasco, **Garney Construction** Cowboy, Gorrondona, Custom Fence, LKT, Astro \$9,317,301 29% \$6,649,736 71% \$93,687,256 100% Johnny, Pam, Father & Son, Bowden's Erosion Statewide, Cowboy, TX Enviro, Champion, **MWH Constructors** Ram Tool, Rent-a-Fence, Soto Steel, A-Star, \$13,736,793 27% \$10,089,278 73% \$51,142,843 Ike, Greystone, LKT, Accurate, Green Scaping

\$1,449,920

\$21,248,870

\$848,113

\$0

\$0

\$0

0%

0%

\$1,449,920

\$16,445,013

\$5,692,644

\$0

\$0

\$0

\$4,864,888

\$923.119

\$633,263

66%

\$7.488.959

\$141,303,930

\$10,049,653

0%

0%

0%

M/WBE PARTICIPATION

as of 05 31 18

CONTRACT DESIGN	M/WBE & HUB SUB-	CONTRACT		M/WBE H INVOICED 1		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%	\$20,810,217	527%	\$50,572,476	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%	\$20,810,217	527%	\$50,572,476	100%	
Pipeline Section 14		\$6,084,953	22%	\$6,902,667	113%	\$46,500,531	96%	
Garney Construction	AEA, Gorrondona, JC Welding, LKT, Statewide, Bowdens	\$6,084,953	28%	\$6,902,667	113%	\$46,450,531	96%	
Magellan	Captioned Crossing Inspection Section 14	\$0	0%	\$0	0%	\$50,000	100%	
Pipeline Section 17		\$12,041,871	24%	\$3,233,039	27%	\$53,078,807	67%	
IPL Partners	LKT, Industry Junction, Eagle Aggregate, Suncoast Res, ATS Drilling, RECS, ANA, Alliance,Ram, JC Welding, Luis Moreno	\$6,642,235	24%	\$1,679,025	25%	\$19,946,069	60%	
Thalle Midlothian	Fleet Lube, Rambo Controls, AE Trucking, MKI Construction, Stome Water Management, Industy Junction, Ortega Land Clearing	\$5,399,636	25%	\$1,554,014	29%	\$33,132,738	73%	
JCC1		\$3,014,075	11%	\$12,940,782	429%	\$15,437,797		
BAR Constructors	Industry Junction, K&A Steel, Ricochet Fuel, Ricochet Fuel, Tidy Toilets, Buzz Custom Fence	\$1,011,840	6%	\$12,075,873	1193%	\$12,991,436	65%	
Ebara		\$0	0%	\$0	0%	\$603,745	11%	
Lambda Construction	High Voltage	\$2,002,235	37%	\$864,909	43%	\$1,842,616	34%	
Oncor Electric		\$0	0%	\$0	0%	\$0	0%	
Pipeline Section 10/11		\$7,133,891	20%	\$8,886,834	125%	\$45,626,636	80%	
IPL Partners	LKT, Industry Junction, Eagle Aggregate, Suncoast Res, ATS Drilling, RECS, ANA, Alliance,Ram, JC Welding, Luis Moreno	\$5,708,755	24%	\$2,778,948	49%	\$39,501,298	91%	
Oncor Electric		\$0	0%	\$0	0%	\$17,452	100%	
BAR Constructors	Industry Junction,VSG Trucking, Ricochet, MMG Disposal,Garland HVAC,CMC Rebar, Buzz Custum Fence, K&A Steel, Rangle Land Surveying	\$1,425,136	11%	\$6,107,886	429%	\$6,107,886	45%	
Valve Packages		\$0	0%	\$0	0%	\$11,858,846	83%	
CONSTRUCTION MANAGEMENT		\$23,237,427	36%	\$14,436,474	62%	\$35,249,061	54%	
Completed		\$10,553,046	34%	\$6,252,682		\$16,698,879	549	
Active		\$12,684,381	37%	\$8,183,793	65%	\$18,550,183	55%	
CONSTRUCTION MATERIALS TEST	'ING	\$7,226,826	60%	\$3,761,611	52%	\$7,162,307	60%	
Completed		\$219,036	97%	\$219,036	100%	\$225,132	100%	
Active		\$7,007,790	59%	\$3,542,575	51%	\$6,937,175	599	
ROCIP		\$1,499,307	6%	\$308,121	21%	\$19,735,576	859	
TOTAL		\$176,193,484	25%	\$170,163,889	97%	\$831,445,421	85%	
LAND COST MISCELLANEOUS		\$0 \$0	0%	\$61,892	0%	\$65,280,067 \$3,736,346	280%	
GRAND TOTAL		\$176,193,484	25%*	\$0 \$170,225,781	97%	\$3,736,346	869	
GRAND TOTAL		\$176,193,484	25%*					
Denotes participation	percentage excluding cost of pip	e and owner		M/WBE/HUB Invoice),225,78),461,83	
furnished equipment.	percentage excluding cost of pip	c and owner		* Exclusions Invoice			5,624,40	
rainisiiea eaaibiiielli.								

Oncor Electric

Isolux Corsan

Thalle Midlothian

BAR Constructors

Pentair Flow Technologies

RE Monks

Metal Buzz Rangel

LKT, Statewide, Granados, Desert Steel, ETTL,

Fraire's, DFW Aggregates, Ricochet, MMG,

LKT, Brock, Garland Heating & Air, Texas

Glenko, A.N.A., Edwards, Buzz, Bradley-

Dvna Grid

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

