



# INTEGRATED PIPELINE PROJECT

## MONTHLY EXECUTIVE SUMMARY

March 2016

PL15-2 Using concrete counterweights to prevent pipe floating during flowable fill placement



### IPL PROGRAM MANAGEMENT

Tarrant Regional Water District  
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@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 03.31.16

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
<b>PROGRAM WIDE PROFESSIONAL SERVICES</b>		<b>\$133,061,000</b>	<b>\$87,880,007</b>	<b>\$82,176,033</b>
<b>Program Management</b>	Overall program management services for implementation of the IPL Project. (Extension of TRWD staff)	\$45,000,000	\$35,124,711	\$35,124,711
<b>Conceptual Design / Environmental / Permitting</b>	Operations plan & Prepare 404 permit application, Envision Application Completion	\$13,551,000	\$13,472,389	\$12,737,597
<b>Value Engineering</b>	Expert review of design	\$640,000	\$472,248	\$472,248
<b>Surveying and Mapping</b>	Control, property survey, legal descriptions, and Provide SUE Level A Survey, GIS	\$14,600,000	\$11,858,055	\$10,262,344
<b>Geotechnical</b>	Initial Characterization of entire IPL Project	\$12,037,000	\$12,026,275	\$11,798,959
<b>Corrosion Engineering Services</b>	Engineering Corrosion Control	\$3,891,000	\$4,885,562	\$3,643,192
<b>Land, Easement Acquisition, &amp; Support</b>	Right of Entry and Land Acquisition Support Services	\$33,993,000	\$3,464,526	\$3,176,971
<b>Studies</b>		\$3,500,000	\$3,545,243	\$3,364,126
<b>SCADA System</b>	Engineering of SCADA system	\$640,000	\$1,508,213	\$127,275
<b>Microwave System</b>	Engineering of Communications System	\$5,210,000	\$1,522,785	\$1,468,609
<b>DESIGN</b>		<b>\$152,839,000</b>	<b>\$126,157,977</b>	<b>\$108,073,690</b>
<b>Completed</b>		<b>\$103,899,000</b>	<b>\$96,387,769</b>	<b>\$95,151,945</b>
<b>Active</b>		<b>\$24,159,000</b>	<b>\$29,230,270</b>	<b>\$12,921,745</b>
<b>CH2M Hill</b>	Project Operational Information and Operations Manual		\$3,044,922	\$854,504
<b>CH2M Hill</b>	Final Conformance of Design of JCC1	\$728,000	\$477,859	\$410,475
<b>MWH</b>	Final Conformance of Design of Section 9/10/11	\$506,000	\$524,313	\$491,583
<b>Black &amp; Veatch</b>	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
<b>Parsons</b>	Final Conformance of Design of Sections 17/18/Tunnel	\$832,000	\$579,753	\$232,785
<b>Brown &amp; Gay</b>	Final Design of Section 19-1	\$5,770,000	\$7,003,722	\$226,577
<b>HDR</b>	Final Design of Section 19-2	\$5,030,000	\$6,989,876	\$521,274
<b>Burns &amp; McDonnell Trans. Mgmt.</b>	Development of Transportation Management Plan		\$905,203	\$533,243
<b>Remaining</b>		<b>\$24,780,000</b>	<b>\$539,938</b>	
<b>CONSTRUCTION ADMINISTRATION</b>		<b>\$48,877,000</b>	<b>\$15,395,691</b>	<b>\$5,081,908</b>
<b>CONSTRUCTION / OWNER FURNISHED EQUIPMENT</b>		<b>\$1,729,540,000</b>	<b>\$452,180,320</b>	<b>\$254,153,089</b>
<b>Completed</b>		<b>\$3,700,000</b>	<b>\$3,860,755</b>	<b>\$3,644,051</b>
<b>Active</b>		<b>\$616,879,000</b>	<b>\$448,319,565</b>	<b>\$250,509,038</b>
<b>Pipeline Section 15-1</b>		<b>\$115,112,000</b>	<b>\$93,517,546</b>	<b>\$91,747,153</b>
<b>Garney Construction</b>	Construction of Section 15-1	\$115,112,000	\$93,517,546	\$91,747,153
<b>JB3</b>		<b>\$99,592,000</b>	<b>\$85,280,597</b>	<b>\$26,218,638</b>
<b>MWH Constructors</b>	Construction of JB3 Pump Station	\$51,473,000	\$56,808,072	\$11,896,134
<b>ASI Constructors</b>	Construction of JB3 Reservoir	\$16,579,000	\$11,669,898	\$11,669,898
<b>Oncor Electric</b>	Installation of JB3 Substation Transmission Lines	\$1,066,000	\$957,119	\$923,119
<b>Isolux Corsan</b>	Construction of JB3 Substation	\$7,400,000	\$4,921,283	\$715,499
<b>Pentair Flow Technologies</b>	Construction of JB3 Pumps, Motors, Drives	\$23,074,000	\$10,924,225	\$1,013,988

# PROGRAM SUPPORT SERVICES

as of 03.31.16

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
Pipeline Section 12/13/MBR/JB4 Bypass		\$167,993,000	\$153,637,277	\$93,304,945
<b>Thalle Midlothian</b>	Construction of Sections 12/13/MBR/JB4 Bypass	\$146,310,000	\$142,985,837	\$91,512,089
<b>BAR Constructors</b>	Construction of Richland-Chambers/Cedar Creek Interconnection Facility	\$21,682,000	\$10,563,440	\$1,792,856
<b>Hilco Electric</b>	Relocation of Electrical Service Lines		\$88,000	
Microwave System		\$6,398,000	\$5,323,682	\$3,141,842
<b>Huffman Communications</b>	Construction of Microwave Towers	\$6,398,000	\$5,323,682	\$3,141,842
Pipeline Section 15-2		\$97,217,000	\$51,871,918	\$28,047,738
<b>BAR Constructors</b>	Construction of Section 15-2	\$97,217,000	\$51,871,918	\$28,047,738
Pipeline Section 14		\$107,113,000	\$48,107,931	
<b>Garney Construction</b>	Construction of Section 14	\$107,113,000	\$48,107,931	
Valve Packages		\$12,455,000	\$10,580,613	\$2,227,766
<b>Garney Construction</b>	Valve Package 1 - Section 15-1 Butterfly Valves	\$518,000	\$262,244	
<b>Rodney Hunt</b>	Valve Package 2 - Section 15-1 Interconnection Facility Valves	\$474,000	\$733,206	\$664,995
<b>Blackhall Engineering</b>	Valve Package 3 - JB3, Section 15-2, MBR Yard Gate Valves	\$5,500,000	\$5,834,139	\$838,485
<b>Crispin Valves</b>	Valve Package 4 - Section 12 RC/CC Interconnection, JB4 Bypass, MBR Yard Butterfly Valves	\$3,999,000	\$1,999,740	\$185,166
<b>Crispin Valves</b>	Valve Package 5 - JB3 Butterfly Valves	\$1,249,000	\$1,224,944	\$187,115
<b>Ross Valves</b>	Valve Package 6 - Section 12 RC/CC Interconnection Multi-Orifice Valves	\$715,000	\$526,340	\$352,005
Remaining		\$1,108,960,000		
<b>CONSTRUCTION MANAGEMENT</b>		\$65,169,000	\$25,290,740	\$14,466,088
Program-Wide Construction Management			\$25,240,248	\$14,415,596
Pipeline Section 15 (Garney)		\$139,000	\$50,492	\$50,492
<b>CONSTRUCTION MATERIALS TESTING</b>		\$17,295,000	\$9,326,231	\$2,085,477
Pipeline Section 15-1		\$1,198,000	\$1,160,225	\$741,241
JB3		\$741,000	\$1,056,751	\$323,399
Pipeline Section 12/13/MBR		\$1,734,000	\$2,115,410	\$868,688
Microwave System		\$64,000	\$48,899	\$32,303
Pipeline Section 15-2		\$983,000	\$1,171,139	\$119,846
Pipeline Section 14		\$1,158,903	\$650,000	
Program-Wide			\$3,123,808	
<b>ROCIIP</b>		\$2,575,000	\$32,875,390	\$15,732,807
<b>Willis of Texas</b>	ROCIIP Broker Admin / Insurance Premium	\$2,575,000	\$18,258,571	\$11,652,584
<b>Old Republic</b>	Security Obligations		\$14,616,819	\$4,080,223
<b>LAND COST</b>		\$107,384,000	\$42,407,814	\$42,407,814
<b>PROGRAM LEVEL CONTINGENCY</b>		\$83,178,000		
<b>MISCELLANEOUS</b>		\$2,000,000	\$1,538,572	\$1,538,572
<b>GRAND TOTAL</b>		\$2,341,918,000	\$793,052,741	\$525,715,479
<b>REMAINING BOND FUNDS</b>				\$724,284,521

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

# ACCOMPLISHMENTS

through 04.30.16

## PL15-1 (Pipeline Section 15.1 including the S5X15 Richland-Chambers Pipeline Interconnect Facility)

- Completing ROW restoration including final grading, cable mat installation, fencing and gates.
- Completing vaults at air release valves and blow-off valves.

## JB3R (Pump Suction Reservoir for the JB3 Pump Station)

- No work performed.

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

- Continue embankment fill and reservoir excavation of Cells 1 and 2 at MBR.
- Installed 4,050' of 108" pipe.

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

- Installed grass sod at S2X12, JB4 and JB3 tower locations.

## JB3 (250mgd Pump Station expandable to 350mgd)

- Completed setting 108" discharge header pipe in lower level pipe gallery.
- Placed concrete for first section of pump room slab and for first pump support pedestal.
- Began electrical rough-in at Pump Station Electrical Building.

## PL15-2 (Pipeline Section 15.2 that feeds the JB3 Reservoir)

- Installed 4,750' of 108" pipe. Second pipe crew mobilized and installed 1000' of 108" pipe.
- Completed pipe installation and grouting of Waxahachie Creek tunnel.
- Installing manholes at air release and blow-off valve locations.

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

- Completed foundation beams at Interconnect building.
- All tie-ins to existing TRWD pipelines have been completed within scheduled shutdowns.

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

- Continue drilled pier installation and placing concrete slabs for transformers.
- Receiving substation equipment.

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

- Completed tunnels at FM 66, FM 1446, FM 1493 and FM 984.
- Continue tunneling at IH35, FM 876 and FM 877.
- Continue clearing and stripping ROW, receiving 108" pipe deliveries and stockpiling embedment material.
- Trenching sub-contractor mobilized and began rock trenching.

## OFE03 (Owner-furnished 108" Gate Valves)

- Continue casting parts.

## OFE04 (Owner-furnished 54", 60" and 108" Butterfly Valves)

- Four 60" BFVs delivered for S2X12.

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

- IPL reps travelled to Cincinnati, Ohio for Ultrasonic Testing of pump castings for pumps #2 and #3.

# PROJECT SCHEDULE

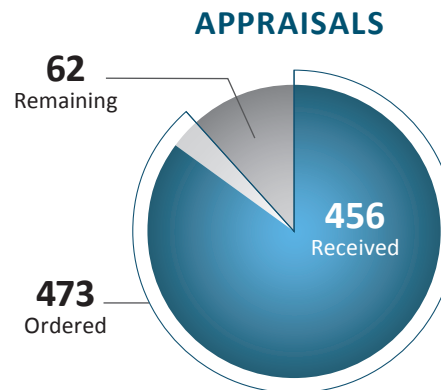
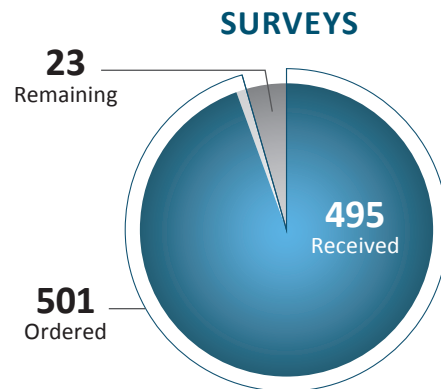
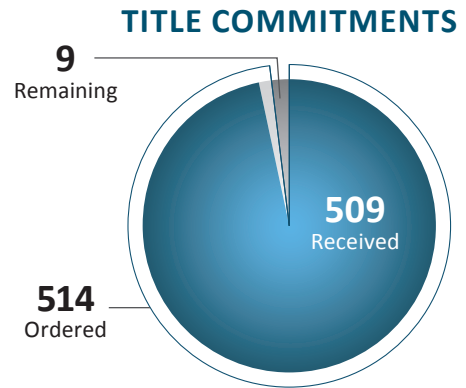
PROJECT COMPONENTS	2014				2015				2016	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
SECTION 15-1 CONSTRUCTION										
COMMUNICATION TOWERS CONSTRUCTION										
SECTIONS 12/13/MBR CONSTRUCTION										
JB3 CONSTRUCTION										
JB3 HIGH VOLTAGE CONSTRUCTION										
SECTION 15-2 CONSTRUCTION										
SECTION 14 CONSTRUCTION										
S2X12 (INTERCONNECTION FACILITY) CONSTRUCTION										

# ACTIVITY STATUS

as of 04.30.16

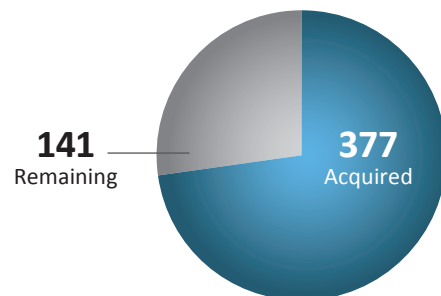


COM01 Microwave tower at S2X12 site



JB3 108-inch discharge header pipe in lower level of JB3 Pump Station

### LAND ACQUISITION



Total Parent Parcels: 518

Q3	Q4	2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

# M/WBE PARTICIPATION

as of 03.31.16

CONTRACT DESIGN AND CONSTRUCTION	M/WBE & HUB SUB-CONTRACTORS	CONTRACT COMMITMENT		M/WBE   HUB INVOICED TO DATE		TOTAL PROJECT COMPLETED TO DATE	
		\$	%	\$	% (PER COMMITMENT)	\$	%
<b>PROGRAM WIDE PROFESSIONAL SERVICES</b>		\$19,800,463	23%	\$19,364,499	98%	\$82,176,033	94%
Program Management		\$6,828,350	19%	\$6,636,687	97%	\$35,124,711	100%
Conceptual Design / Environmental / Permitting		\$2,700,278	20%	\$2,702,423	100%	\$12,737,597	95%
Value Engineering		\$0	0%	\$23,178	100%	\$472,248	100%
Surveying and Mapping		\$3,548,416	30%	\$3,794,648	107%	\$10,262,344	87%
Geotechnical		\$3,572,334	30%	\$3,518,305	98%	\$11,798,959	98%
Corrosion Engineering Services		\$1,053,764	22%	\$761,434	72%	\$3,643,192	75%
Land, Easement Acquisition, & Support		\$1,201,457	35%	\$1,436,452	120%	\$3,176,971	92%
Studies		\$41,717	1%	\$41,717	100%	\$3,364,126	95%
SCADA System		\$384,444	25%	\$0	0%	\$127,275	8%
Microwave System		\$469,702	31%	\$449,654	96%	\$1,468,609	96%
<b>DESIGN</b>		\$33,574,807	27%	\$29,157,053	87%	\$108,073,690	86%
Completed		\$26,513,868	28%	\$25,980,682	98%	\$95,151,945	99%
Active		\$7,060,939	24%	\$3,176,371	45%	\$12,921,745	44%
CH2M Hill (Ops Manual)	NDM	\$479,674	16%	\$201,114	42%	\$854,504	28%
CH2M Hill (JCC1)	JQ, Gupta, APM, HVJ, XENCO	\$123,192	26%	\$76,085	62%	\$410,475	86%
MWH	Garzabury, Kevin Sloan	\$226,705	43%	\$120,357	53%	\$491,583	94%
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%	\$0	0%	\$232,785	40%
Brown & Gay	AZB, TME, Lamb-Star, NDM	\$1,750,930	25%	\$20,478	1%	\$226,577	3%
HDR	AZB, Daltech, Word Wizards, Gupta	\$1,747,469	25%	\$92,001	5%	\$521,274	7%
Burns & McDonnell Trans. Mgmt.	Lamb-Star Engineering	\$162,500	18%	\$88,578	55%	\$533,243	59%
Remaining		\$0	0%	\$0	0%	\$0	0%
<b>CONSTRUCTION ADMINISTRATION</b>		\$3,854,622	25%	\$1,179,455	31%	\$5,081,908	33%
<b>CONSTRUCTION / OWNER FURNISHED EQUIPMENT</b>		\$60,652,397	24%*	\$26,636,155	44%	\$254,153,089	56%
Completed		\$1,354,402	35%	\$1,354,402	100%	\$3,644,051	94%
Active		\$59,297,995	24%*	\$25,281,753	43%	\$250,509,038	56%
Pipeline Section 15-1		\$9,415,226	29%*	\$6,432,354	68%	\$91,747,153	98%
Garney Construction	Danridge, SYB, Ricochet, Glenko, Carrasco, Cowboy, Gorrondona, Custom Fence, LKT, Astro Johnny, Pam, Father & Son, Bowden's Erosion	\$9,415,226	29%*	\$6,432,354	68%	\$91,747,153	98%
JB3		\$16,474,218	25%*	\$2,648,974	16%	\$26,218,638	31%
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%*	\$1,028,868	8%	\$11,896,134	21%
ASI Constructors	Champion Fuel, Desert Steel, Green Scaping	\$1,417,833	13%*	\$1,525,477	108%	\$11,669,898	100%

# M/WBE PARTICIPATION

as of 03.31.16

CONTRACT DESIGN AND CONSTRUCTION	M/WBE & HUB SUB-CONTRACTORS	CONTRACT COMMITMENT		M/WBE   HUB INVOICED TO DATE		TOTAL PROJECT COMPLETED TO DATE	
		\$	%	\$	% (PER COMMITMENT)	\$	%
Isolux Corsan	Dyna Grid	\$1,476,385	30%	\$94,629	6%	\$715,499	15%
Oncor Electric		\$0	0%	\$0	0%	\$923,119	96%
Pentair Flow Technologies		\$0	0%	\$0	0%	\$1,013,988	9%
Pipeline Section 12/13/MBR/JB4 Bypass		\$22,054,002	24%*	\$9,538,257	43%	\$93,304,945	61%
Thalle Midlothian	LKT, Statewide, Granados, Desert Steel, E TTL, Glenko, A.N.A., Edwards, Buzz, Bradley-Douglas, Pinnacle	\$21,209,810	27%*	\$7,934,278	37%	\$91,512,089	64%
BAR Constructors	Fraire's, DFW Aggregates, Ricochet, MMG, LKT, Brock, Garland Heating & Air, Texas Metal, Buzz, Rangel	\$844,192	8%	\$1,603,979	190%	\$1,792,856	17%
Hilco Electric		\$0	0%	\$0	0%	\$0	0%
Microwave System		\$1,162,817	22%	\$888,734	76%	\$3,141,842	59%
Huffman Communications	Ricochet, Edwards, Chaffin Tower	\$1,162,817	22%	\$888,734	76%	\$3,141,842	59%
Pipeline Section 15-2		\$4,122,200	16%*	\$5,773,433	140%	\$28,047,738	54%
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%	\$5,773,433	140%	\$28,047,738	54%
Pipeline Section 14		\$6,069,533	22%*	\$0	0%	\$5,820,956	12%
Garney Construction	AEA, Gorrondona, JC Welding, LKT, Statewide, Bowdens	\$6,069,533	22%	\$0	0%	\$5,820,956	12%
Valve Packages		\$0	0%	\$0	0%	\$2,227,766	21%
CONSTRUCTION MANAGEMENT		\$12,402,474	49%	\$5,562,830	45%	\$14,466,088	57%
Program-Wide Construction Management		\$12,402,474	49%	\$5,562,830	45%	\$14,415,596	57%
Pipeline Section 15 (Garney)		\$0	0%	\$0	0%	\$50,492	100%
CONSTRUCTION MATERIALS TESTING		\$4,668,945	50%	\$984,780	21%	\$2,085,477	22%
Pipeline Section 15-1		\$349,128	30%	\$248,110	71%	\$741,241	64%
JB3		\$565,815	54%	\$259,329	46%	\$323,399	31%
Pipeline Section 12/13/MBR		\$467,603	22%	\$357,496	76%	\$868,688	41%
Microwave System		\$0	0%	\$0	0%	\$32,303	66%
Pipeline Section 15-2		\$1,171,139	100%	\$119,846	10%	\$119,846	10%
Pipeline Section 14		\$0	0%	\$0	0%	\$0	0%
Program-Wide		\$2,115,260	68%	\$0	0%	\$0	0%
ROCIIP		\$1,499,307	5%	\$184,957	12%	\$15,732,807	48%
Willis of Texas		\$1,499,307	8%	\$184,957	12%	\$11,652,584	64%
Old Republic		\$0	0%	\$0	0%	\$4,080,223	28%
TOTAL		\$136,453,016	25%*	\$83,069,728	61%	\$481,769,093	64%
LAND COST						\$42,407,814	39%
MISCELLANEOUS						\$1,538,572	
GRAND TOTAL		\$136,453,016	25%*	\$83,069,728	61%	\$525,715,479	66%

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

# 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
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

