



INTEGRATED PIPELINE PROJECT

MONTHLY EXECUTIVE SUMMARY

May 2016



JB3, JB3HV and PL14 Aerial view of JB3 Pump Station, Data Center, High Voltage Substation and PL14

IPL PROGRAM MANAGEMENT

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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 05.31.16

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
PROGRAM WIDE PROFESSIONAL SERVICES		\$133,061,000	\$88,066,807	\$82,412,396
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	\$12,803,046
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	\$10,301,096
Geotechnical	Initial Characterization of entire IPL Project	\$12,037,000	\$12,026,275	\$11,798,959
Corrosion Engineering Services	Engineering Corrosion Control	\$3,891,000	\$5,072,362	\$3,699,204
Land, Easement Acquisition, & Support	Right of Entry and Land Acquisition Support Services	\$33,993,000	\$3,464,526	\$3,239,072
Studies		\$3,500,000	\$3,545,243	\$3,364,126
SCADA System	Engineering of SCADA system	\$640,000	\$1,508,213	\$141,324
Microwave System	Engineering of Communications System	\$5,210,000	\$1,522,785	\$1,468,609
DESIGN		\$152,839,000	\$126,155,928	\$109,083,088
Completed		\$103,899,000	\$96,385,721	\$95,151,945
Active		\$24,159,000	\$29,230,270	\$13,931,143
CH2M Hill	Project Operational Information and Operations Manual		\$3,044,922	\$1,185,609
CH2M Hill	Final Conformance of Design of JCC1	\$728,000	\$477,859	\$476,492
MWH	Final Conformance of Design of Section 9/10/11	\$506,000	\$524,313	\$510,350
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	\$301,889
Brown & Gay	Final Design of Section 19-1	\$5,770,000	\$7,003,722	\$371,905
HDR	Final Design of Section 19-2	\$5,030,000	\$6,989,876	\$900,348
Burns & McDonnell Trans. Mgmt.	Development of Transportation Management Plan		\$905,203	\$533,243
Remaining		\$24,780,000	\$539,938	
CONSTRUCTION ADMINISTRATION		\$48,877,000	\$15,395,691	\$5,836,024
CONSTRUCTION / OWNER FURNISHED EQUIPMENT		\$1,729,540,000	\$452,846,582	\$284,674,160
Completed		\$3,700,000	\$3,860,755	\$3,644,051
Active		\$605,879,000	\$448,985,827	\$281,030,109
Pipeline Section 15-1		\$115,112,000	\$93,682,440	\$91,892,776
Garney Construction	Construction of Section 15-1	\$115,112,000	\$93,682,440	\$91,892,776
JB3		\$99,592,000	\$85,329,871	\$29,949,391
MWH Constructors	Construction of JB3 Pump Station	\$51,473,000	\$56,808,072	\$14,114,075
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	\$4,921,283	\$2,228,311
Pentair Flow Technologies	Construction of JB3 Pumps, Motors, Drives	\$23,074,000	\$10,973,499	\$1,013,988

PROGRAM SUPPORT SERVICES

as of 05.31.16

CONTRACT DESIGN AND CONSTRUCTION	DESCRIPTION	BUDGET	CONTRACTS ISSUED	TOTAL INVOICED
Pipeline Section 12/13/MBR/JB4 Bypass		\$167,993,000	\$153,637,277	\$99,658,436
Thalle Midlothian	Construction of Sections 12/13/MBR/JB4 Bypass	\$146,310,000	\$142,985,837	\$96,883,601
BAR Constructors	Construction of Richland-Chambers/Cedar Creek Interconnection Facility	\$21,682,000	\$10,563,440	\$2,774,834
Hilco Electric	Relocation of Electrical Service Lines		\$88,000	
Microwave System		\$6,398,000	\$5,323,682	\$3,250,158
Huffman Communications	Construction of Microwave Towers	\$6,398,000	\$5,323,682	\$3,250,158
Pipeline Section 15-2		\$97,217,000	\$51,915,172	\$34,878,922
BAR Constructors	Construction of Section 15-2	\$97,217,000	\$51,915,172	\$34,878,922
Pipeline Section 14		\$107,113,000	\$48,139,634	\$17,787,451
Garney Construction	Construction of Section 14	\$107,113,000	\$48,139,634	\$17,787,451
Valve Packages		\$12,455,000	\$10,957,750	\$3,612,975
Garney Construction	Valve Package 1 - Section 15-1 Butterfly Valves	\$518,000	\$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	\$6,211,276	\$1,860,452
Crispin Valves	Valve Package 4 - Section 12 RC/CC Interconnection, JB4 Bypass, MBR Yard Butterfly Valves	\$3,999,000	\$1,999,740	\$352,962
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
Remaining		\$1,119,960,000		
CONSTRUCTION MANAGEMENT		\$65,169,000	\$47,168,891	\$15,748,135
Program-Wide Construction Management			\$47,118,399	\$15,697,643
Pipeline Section 15 (Garney)		\$139,000	\$50,492	\$50,492
CONSTRUCTION MATERIALS TESTING		\$17,295,000	\$10,135,125	\$2,410,578
Pipeline Section 15-1		\$1,198,000	\$1,160,225	\$741,241
JB3		\$741,000	\$1,056,751	\$407,118
Pipeline Section 12/13/MBR		\$1,734,000	\$2,115,410	\$1,025,556
Microwave System		\$64,000	\$48,899	\$35,831
Pipeline Section 15-2		\$983,000	\$1,171,139	\$152,549
Pipeline Section 14		\$1,158,903	\$650,000	\$0
Program-Wide			\$3,932,702	\$48,284
ROCIP		\$2,575,000	\$32,876,613	\$16,772,809
Willis of Texas	ROCIP Broker Admin / Insurance Premium	\$2,575,000	\$18,258,571	\$11,689,086
Old Republic	Security Obligations		\$14,618,042	\$5,083,723
LAND COST		\$107,384,000	\$44,326,396	\$44,326,396
PROGRAM LEVEL CONTINGENCY		\$83,178,000		
MISCELLANEOUS		\$2,000,000	\$1,637,577	\$1,637,577
GRAND TOTAL		\$2,341,918,000	\$818,609,610	\$562,901,163
REMAINING BOND FUNDS				\$687,098,837

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

ACCOMPLISHMENTS

through 06.30.16

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

- Completing ROW fence and gate installations.
- Installing temporary piping for filling and testing pipeline.
- Working on punch list items.

JB3R (Pump Suction Reservoir for the JB3 Pump Station)

- No work by contractor this month but grass has not reached the point of final acceptance for final payment at this time.

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

- Continue embankment fill for reservoir Cells 1 and 2 and near completion of Cell 2 bottom excavation.
- Continue concrete placements for 108" Gate Valve Vaults.
- Installing electrical ductbanks.
- Installed 3,800' of 108" pipe.
- Continue removing excess spoil material along ROW.

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

- Communication facility at JCC1 is energized.
- Access card readers are being installed at JCC1 and JB4 facilities.

JB3 (250mgd Pump Station expandable to 350mgd)

- Placed concrete for pump 6 support pedestal and 2 sections of pump room floor slab.
- Continue electrical rough in and begin working on foundation beams at the Electrical Building.
- Began installing 108" pump discharge yard piping.
- Installing structural steel at Data Center building.

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

- Pipe crew #1 Installed 7,150' of 108" pipe; pipe crew #2 installed 450' of 108" pipe.
- Completed 50% of reinforced concrete encasement of pipe into and out of the Waxahachie Creek tunnel.
- Continue installing manholes at air release and blow-off valve locations and installing cathodic protection test stations.

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

- Completed concrete for floor slab at Interconnect Building and began installing structural steel.

- Completed pipe installation and grouting in tunnel under existing RC and CC pipelines for DWU connection.

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

- Completed installing cable trench.
- Installing underground conduits on the substation pad and installing grounding.

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

- Installed 4,400' of 108" pipe and completed pre-trenching 8,000'.
- Completed pipe installation in tunnels at FM 66 and FM 1446 and pipe in tunnel at FM 1494.
- Continue tunneling at IH35, and under Enterprise and Energy Transfer gas lines. Completed tunnel under Atmos gas line.
- Continue receiving 108" pipe deliveries and stockpiling embedment material.

PL17TUN (Trinity River Tunnel on Pipeline Section 17)

- Received and evaluated contractors' proposals for tunnel construction.

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

- Advertised for proposals to be received 7/14/16.

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

- Advertised for proposals to be received 7/21/16.

OFE03 (Owner-Furnished 108" Gate Valves)

- IPL reps witnessed ultrasonic testing of castings at Calera, Alabama and Greenville, Pennsylvania. Five castings were tested and all passed.

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

- Assembling 108" BFV for "Proof of Design" testing.

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

- IPL and TRWD reps witnessed successful factory testing of first Variable Frequency Drive unit for JB3 pumps.

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 06.30.16

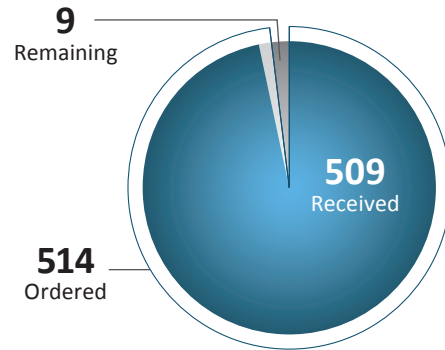


Machining of 108-inch Butterfly Valve Body at Davis Machine and Fabricating, Calera, AL

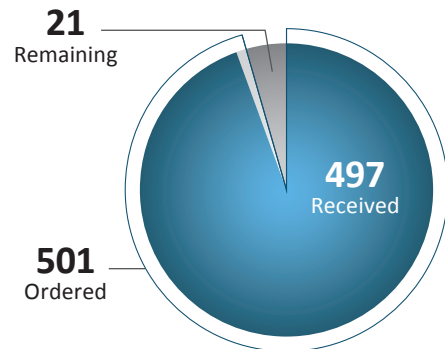


OFE03 Intermediate Section of 108-inch Gate Valve

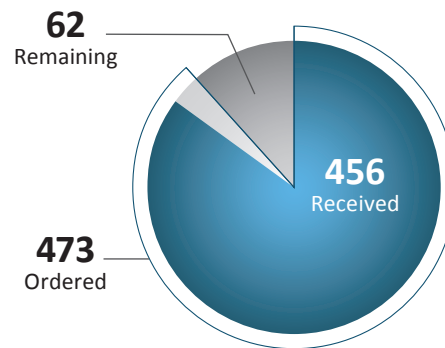
TITLE COMMITMENTS



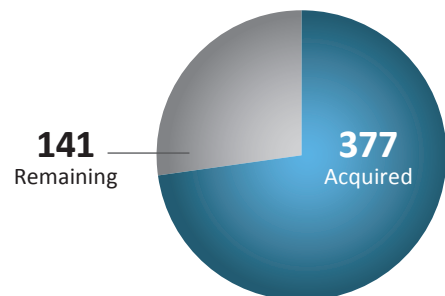
SURVEYS



APPRAISALS



LAND ACQUISITION



Total Parent Parcels: 518

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

M/WBE PARTICIPATION

as of 05.31.16

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%	\$19,407,221	98%	\$82,412,396	94%
Program Management		\$6,828,350	19%	\$6,636,687	97%	\$35,124,711	100%
Conceptual Design / Environmental / Permitting		\$2,700,278	20%	\$2,725,061	101%	\$12,803,046	95%
Value Engineering		\$0	0%	\$23,178	100%	\$472,248	100%
Surveying and Mapping		\$3,548,416	30%	\$3,794,648	107%	\$10,301,096	87%
Geotechnical		\$3,572,334	30%	\$3,518,305	98%	\$11,798,959	98%
Corrosion Engineering Services		\$1,053,764	21%	\$761,434	72%	\$3,699,204	73%
Land, Easement Acquisition, & Support		\$1,201,457	35%	\$1,456,536	121%	\$3,239,072	93%
Studies		\$41,717	1%	\$41,717	100%	\$3,364,126	95%
SCADA System		\$384,444	25%	\$0	0%	\$141,324	9%
Microwave System		\$469,702	31%	\$449,654	96%	\$1,468,609	96%
DESIGN		\$33,574,807	27%	\$29,419,536	88%	\$109,083,088	86%
Completed		\$26,513,868	28%	\$25,980,682	98%	\$95,151,945	99%
Active		\$7,060,939	24%	\$3,438,854	49%	\$13,931,143	48%
CH2M Hill (Ops Manual)	NDM	\$479,674	16%	\$274,394	57%	\$1,185,609	39%
CH2M Hill (JCC1)	JQ, Gupta, APM, HVJ, XENCO	\$123,192	26%	\$104,501	85%	\$476,492	100%
MWH	Garzabury, Kevin Sloan	\$226,705	43%	\$120,357	53%	\$510,350	97%
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%	\$301,889	52%
Brown & Gay	AZB, TME, Lamb-Star, NDM	\$1,750,930	25%	\$77,641	4%	\$371,905	5%
HDR	AZB, Daltech, Word Wizards, Gupta	\$1,747,469	25%	\$195,626	11%	\$900,348	13%
Burns & McDonnell Trans. Mgmt.	Lamb-Star Engineering	\$162,500	18%	\$88,578	55%	\$533,243	59%
Remaining		\$0	0%	\$0	0%	\$0	0%
CONSTRUCTION ADMINISTRATION		\$3,854,622	25%	\$1,428,806	37%	\$5,836,024	38%
CONSTRUCTION / OWNER FURNISHED EQUIPMENT		\$60,973,499	24%*	\$32,881,624	54%	\$284,674,160	63%
Completed		\$1,354,402	35%	\$1,354,402	100%	\$3,644,051	94%
Active		\$59,619,097	24%*	\$31,527,222	53%	\$281,030,109	63%
Pipeline Section 15-1		\$9,415,226	29%*	\$6,447,419	68%	\$91,892,776	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%*	\$6,447,419	68%	\$91,892,776	98%
JB3		\$16,474,218	25%*	\$3,865,521	23%	\$29,949,391	35%
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%*	\$1,164,538	9%	\$14,114,075	25%
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 05.31.16

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%	\$1,175,507	80%	\$2,228,311	45%
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%*	\$10,958,846	50%	\$99,658,436	65%
Thalle Midlothian	LKT, Statewide, Granados, Desert Steel, E TTL, Glenko, A.N.A., Edwards, Buzz, Bradley-Douglas, Pinnacle	\$21,209,810	27%*	\$8,564,461	40%	\$96,883,601	68%
BAR Constructors	Fraire's, DFW Aggregates, Ricochet, MMG, LKT, Brock, Garland Heating & Air, Texas Metal, Buzz, Rangel	\$844,192	8%	\$2,394,385	284%	\$2,774,834	26%
Hilco Electric		\$0	0%	\$0	0%	\$0	0%
Microwave System		\$1,471,554	28%	\$988,826	67%	\$3,250,158	61%
Huffman Communications	Ricochet, Edwards, Chaffin Tower	\$1,471,554	28%	\$988,826	67%	\$3,250,158	61%
Pipeline Section 15-2		\$4,122,200	16%*	\$9,061,741	220%	\$34,878,922	67%
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%	\$9,061,741	220%	\$34,878,922	67%
Pipeline Section 14		\$6,081,897	22%*	\$204,870	3%	\$17,787,451	37%
Garney Construction	AEA, Gorrondona, JC Welding, LKT, Statewide, Bowdens	\$6,081,897	22%	\$204,870	3%	\$17,787,451	37%
Valve Packages		\$0	0%	\$0	0%	\$3,612,975	33%
CONSTRUCTION MANAGEMENT		\$18,649,048	40%	\$6,135,770	33%	\$15,748,135	33%
Program-Wide Construction Management		\$18,649,048	40%	\$6,135,770	33%	\$15,697,643	33%
Pipeline Section 15 (Garney)		\$0	0%	\$0	0%	\$50,492	100%
CONSTRUCTION MATERIALS TESTING		\$4,668,945	46%	\$1,128,182	24%	\$2,410,578	24%
Pipeline Section 15-1		\$349,128	30%	\$248,110	71%	\$741,241	64%
JB3		\$565,815	54%	\$323,243	57%	\$407,118	39%
Pipeline Section 12/13/MBR		\$467,603	22%	\$382,811	82%	\$1,025,556	48%
Microwave System		\$0	0%	\$0	0%	\$35,831	73%
Pipeline Section 15-2		\$1,171,139	100%	\$152,549	13%	\$152,549	13%
Pipeline Section 14		\$0	0%	\$0	0%	\$0	0%
Program-Wide		\$2,115,260	54%	\$21,470	1%	\$48,284	1%
ROCIIP		\$1,499,307	5%	\$195,447	13%	\$16,772,809	51%
Willis of Texas		\$1,499,307	8%	\$195,447	13%	\$11,689,086	64%
Old Republic		\$0	0%	\$0	0%	\$5,083,723	35%
TOTAL		\$143,020,692	25%*	\$90,596,587	63%	\$516,937,191	67%
LAND COST				\$46,000		\$44,326,396	41%
MISCELLANEOUS						\$1,637,577	
GRAND TOTAL		\$143,020,692	25%*	\$90,642,587	63%	\$562,901,163	69%

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

**This number excludes owner furnished equipment, large diameter pipe and land cost \$195,097,940.

M/WBE/HUB Invoiced	\$90,642,587
Grand Total Invoiced	\$562,901,163
* Exclusions Invoiced	\$195,097,940
MWBE %	24.64%

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

