

**RBP OPTIMUM REPLACEMENT COST STUDY  
 PROPOSED NEW ROUTE HAIGSLEA TO GIBSON ISLAND  
 CAPITAL COST ESTIMATE**

ITEM	DN 500 with DN 400 Metro			
	QTY	UNIT	RATE	CAPITAL COST (\$A)
<b><u>SUPPLY COATED LINEPIPE (M/L &amp; LATERALS)</u></b>				
(DELIVERED INTO STOCKPILES ALONG R.O.W.)				
DN 500 X70 API5L 9.2WT (WALLUMBILLA TO CITY GATE)	361.4	km	245,000	88,543,000
DN 500 X70 API5L 11WT (WALLUMBILLA TO CITY GATE)	35.5	km	281,000	9,975,500
DN 450 X56 API5L 10WT (CITY GATE TO GIBSON IS)	57	km	262,000	14,934,000
DN 300 X70 API5L 8.4WT (SWANBANK LATERAL)	1.5	km	166,000	249,000
DN 150 X42 API5L 6.4WT (RIVERVIEW LATERAL)	5	km	72,000	360,000
DN 200 X42 API5L 6.4WT (RUNCORN LATERAL)	2.6	km	91,000	236,600
DN 100 X42 API5L 6WT (MT GRAVATT LATERAL)	1	km	51,000	51,000
DN 250 X70 API5L 6WT (PEAT LATERAL)	106.2	km	110,000	11,682,000
DN 250 X70 API5L 7.2WT (PEAT LATERAL)	5	km	126,000	630,000
DN 250 X70 API5L 6WT (SCOTIA EXT LATERAL)	8.1	km	110,000	891,000
DN 250 X70 API5L 7.2WT (SCOTIA EXT LATERAL)	1	km	126,000	126,000
<b><u>CLEARING &amp; GRADING R.O.W.</u></b>				0
LIGHT	519.2	km	5,550	2,881,560
MEDIUM	65.1	km	10,650	693,315
<b><u>TRENCHING</u></b>				0
TRENCHER	202.2	km	19,300	3,902,460
EXCAVATOR	226	km	32,350	7,311,100
RIPPABLE ROCK	110	km	38,900	4,279,000
ROCK SAW	46.1	km	42,800	1,973,080
<b><u>PIPE HANDLE, WELD, LOWER IN &amp; JOINT</u></b>				0
STRINGING	584.3	km	6,410	3,745,363
BENDING	584.3	km	4,130	2,413,159
SKIDS & SAND BAGS	584.3	km	1,870	1,092,641
WELDING & TIE INS (DN 500)	396.9	km	69,950	27,763,155
WELDING & TIE INS (DN 450)	57	km	62,600	3,568,200
WELDING & TIE INS (DN 250)	120.3	km	41,900	5,040,570
WELDING & TIE INS (DN VARIES)	10.1	km	29,300	295,930
<i>Carried Forward</i>				<b>192,637,000</b>

ITEM				DN 500 with DN 400 Metro
	QTY	UNIT	RATE	CAPITAL COST (\$A)
<i>Brought Forward</i>				<b>192,637,000</b>
ROTOSCAN NDT 100%	453.9	km	12,650	5,741,835
DOUBLE WALL SCAN RAYS 100%	130.4	km	6,800	886,720
LOWER IN	584.3	km	19,870	11,610,041
FIELD JOINTS (DN 500)	396.9	km	13,035	5,173,592
FIELD JOINTS (DN 450)	57	km	11,950	681,150
FIELD JOINTS (DN 250)	120.3	km	8,050	968,415
FIELD JOINTS (DN VARIES)	10.1	km	6,100	61,610
BEDDING & PADDING (EXCAVATED MATERIAL)	222.2	km	6,600	1,466,520
BEDDING & PADDING (OZZIE PADDER)	362.1	km	22,300	8,074,830
BACKFILLING	584.3	km	2,850	1,665,255
TRENCH BREAKERS (POLYURETHANE)	1050	No	915	960,750
<b>CROSSINGS</b>				0
GRAVEL ROADS	83	No	2,600	215,800
BITUMEN ROADS (BORED)	73	No	93,000	6,789,000
BITUMEN / CONCRETE DRIVEWAYS	103	No	2,700	278,100
HIGHWAYS / MOTORWAYS (BORED)	15	No	195,000	2,925,000
RAIL LINES (BORED)	7	No	85,000	595,000
HORIZONTAL DIRECTIONAL DRILLS (RIVERS)	8	No	1,300,000	10,400,000
UNDERGROUND SERVICES		ITEM		3,000,000
MINOR CREEKS (DRY)	67	No	3,500	234,500
MINOR CREEKS (WET)	21	No	83,000	1,743,000
REMOVE FENCES & GATES & RE-INSTATE	280	No	485	135,800
<b>TESTING, RESTORATION, ETC</b>				0
HYDRO TESTING, DEWATERING & DRYING	584.3	km	15,930	9,307,899
GROUND MARKERS	1666	No	515	857,990
AERIAL MARKERS	58	No	735	42,630
CATHODIC PROTECTION	584.3	km	1,235	721,611
RESTORATION OF R.O.W.	584.3	km	2,850	1,665,255
REVEGETATION SEEDING & WATERING	584.3	km	6,850	4,002,455
PRE COMMISSIONING	584.3	km	950	555,085
Deletion for DN 450 Pipe Transmission Pipe				
Deletion for DN 400 Metro Pipe				-7,500,000
<i>Carried Forward</i>				<b>265,896,000</b>

ITEM				DN 500 with DN 400 Metro
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<i>Brought Forward</i>				265,896,000
<b><u>SCADA &amp; COMMUNICATIONS</u></b>				
UPGRADE FACILITY SITES (DISH, MODEM, ETC)	26	No	8,850	280,000
CONTROL HUTS, POWER SUPPLY, I/O PANEL, ETC	25	No	25,000	625,000
CONTROL ROOM EQUIPMENT + SCADA	1	No	3,000,000	3,000,000
<b><u>WALLUMBILLA COMPRESSOR STATION</u></b>				
SUPPLY & CONSTRUCT (SEE WORKSHEET 3)		ITEM		0
<b><u>Intermediate COMPRESSOR STATION</u></b>				
SUPPLY & CONSTRUCT (SEE WORKSHEET 3)		ITEM		38,146,000
<b><u>PEAT / SCOTIA COMPRESSOR STATION</u></b>				
PEAT = 320 kW, SCOTIA = 500 kW				5,740,000
<b><u>MLV's</u></b>				
DN 450	5	No	285,000	1,425,000
DN 500	3	No	320,000	960,000
DN 250	1	No	128,000	128,000
<b><u>SCRAPER STATIONS</u></b>				
LAUNCHER/RECEIVER (DN 500)	1	No	661,000	661,000
LAUNCHER (DN 500)	1	No	360,000	360,000
RECEIVER (DN 500)	1	No	364,000	364,000
LAUNCHER (DN 300)	1	No	249,500	249,500
RECEIVER (DN 300)	1	No	256,000	256,000
LAUNCHER (DN 250)	1	No	224,000	224,000
RECEIVER (DN 250)	1	No	230,000	230,000
LAUNCHER (DN 150)	1	No	185,500	185,500
RECEIVER (DN 150)	1	No	192,000	192,000
<b><u>ACTUATED ISOLATION VALVES AT STATIONS</u></b>	22	No	81,000	1,782,000
<b><u>STATION FACILITIES</u></b>				
(SEE SEPARATE WORKSHEETS 1 & 2)				0
ARUBIAL		ITEM		801,250
OAKY		ITEM		895,250
<i>Carried Forward</i>				322,400,000

ITEM					DN 500 with DN 400 Metro
	QTY	QTY	UNIT	RATE	CAPITAL COST (\$A)
<i>Brought Forward</i>					322,400,000
TOOWOOMBA			ITEM		2,555,000
SANDY CK			ITEM		895,250
BRIGHTVIEW			ITEM		895,250
SWANBANK			ITEM		4,347,500
REDBANK			ITEM		772,250
<b>CAMPS</b>					
MOBILISATION / DEMOBILISATION			ITEM		700,000
ESTABLISH & RELOCATE			ITEM		1,180,000
HIRE OF CAMP, MESSING & MAINTENANCE	145,000	146,000	M'DAYS	96	14,016,000
<b>CONSTRUCTION PLANT &amp; FACILITIES</b>					
MOBILISATION / DEMOBILISATION			ITEM		4,275,000
SUBTOTAL - Materials & Construction					352,036,000
<b>SUPPORT SERVICES:-</b>					
ENVIRONMENTAL IMPACT STUDIES			ITEM		1,784,000
SURVEY INCL AS-BUILTS			ITEM		1,900,000
EASEMENT ACQUISITION AND COMPENSATION			ITEM		6,130,000
CULTURAL HERITAGE and NATIVE TITLE			ITEM		2,190,000
LAND MANAGEMENT & LIAISON			ITEM		2,526,000
INDIGENOUS MONITORING			ITEM		1,000,000
GEOTECHNICAL INVESTIGATION			ITEM		900,000
OPERATIONS & MAINTENANCE BUILDING			ITEM		1,700,000
LINEPACK for 2005 LOAD + COMMISSIONING			227TJ		681,000
SUBTOTAL - Approvals & Support Services					18,811,000
ESTIMATED COST					370,847,000
<b>INDIRECTS</b>					
OWNERS COSTS	2.00%		ITEM		7,416,000
PROJECT MGT, ENGINEER, PROCURE PIPELINE	4.25%		ITEM		13,895,000
PROJECT MGT, ENGINEER, PROCURE COMP STN	12.00%		ITEM		5,266,000
CONTINGENCY (COMP UNITS & LINEPIPE)	2.50%		ITEM		3,649,000
CONTINGENCY (CONSTRUCTION)	12.50%		ITEM		28,044,000
SUBTOTAL					58,270,000
Estimate Total					429,117,000
Interest During Construction					27,028,000
<b>TOTAL</b>					<b>456,145,000</b>

Effective Contingency (% of Estimate Total before IDC)	7.4%
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