		ANNUAL AND	RKS PROGRAMN	MES 2007-2011 - SEWERAGE								
2007/2008				2008/2009			2009/2010			2010/2011		
ASSET	PROJECT	LOCATION	BUDGET ALLOCATION	PROJECT	LOCATION	BUDGET ALLOCATION	PROJECT	LOCATION	BUDGET ALLOCATION	PROJECT	LOCATION	BUDGET ALLOCATION
SEWERAGE			\$25,815,000			\$6,848,000			\$9,882,000			\$9,246,000
SEWAGE PUMP STATIONS			\$3,342,000			\$2,157,400			\$2,502,800			\$3,596,000
	Upgrade B11, B13, C6, C3, WS1, WS3, C16, T8 and B8 (1)	Shire	, , ,	B5,B6,B7,T9,T1,T6,WS11 & B8 SPS Renewals (1) WS1, WS4, C16, T8 & T22 Renewal			Sewage Pumping Station Upgrades (1)	Shire	\$1,708,800	Sewage Pumping Station Upgrades (1)	Shire	\$2,542,000
				(1)	Snire	\$829,000						
		Shire	\$65,000	Replace Heavy Lids (2)	Shire	\$49,900	Replace Heavy Lids (2)	Shire	\$67,000	Replace Heavy Lids (2)	Shire	\$67,000
	Replace Heavy Lids (2) Generator Connection Points (3)	Shire		Generator Connection Points (3)		\$65,000	Generator Connection Points (3)	Shire	\$67,000	Generator Connection Points (3)	Shire	\$67,000
		Shire		Electrical equipment renewal (4)	Shire		Electrical equipment renewal (4)	Shire		Electrical equipment renewal (4)	Shire	\$250,000
		Shire		Mechanical equipment renewal (4)	Shire		Mechanical equipment renewal (4)	Shire			Shire	\$250,000
		Shire		Flowmeter renewal (4)	Shire		Refurbish Flowmeters (4)	Shire		Renewal of Flowmeters (4)	Shire	\$70,000
	Consultancies for design (5)		\$172,000	Consultancies for design (5)	Shire	\$95,000	Consultancies for design (5)	Shire	\$120,000	Consultancies for	Shire	\$150,000
		Shire		Upgrade telemetry (6)	Shire		Upgrade telemetry (6)	Shire		Upgrade telemetry (6)	Shire	\$100,000
		Shire		Odour Control (7)	Shire		Odour Control (7)	Shire		Odour Control (7)	Shire	\$100,000
		Shire	+ /	Diesel Generators (8)	Shire	\$215,000		00	ψ. ο,σσσ	Casa. Common (1)	00	ψ.σσ,σσσ
	Flow Diversion WS9 (19)	Tuggerah	\$400,000	2.000. 20.10.0.0.0	00	ψ=10,000						
MAINS	Tiew Biverdien Tree (10)	ruggoran	\$6.043.500			\$3.521.000			\$1,021,000			\$1,021,000
	3 ( )	Buff Point /Chittaway/Gwa ndalan	\$300,000	Rehabilitate damaged sewers (9)	Buff Point, Berkeley Vale	\$650,000	Rehabilitate damaged sewers (9)	Shire		Rehabilitate damaged sewers (9)	Shire	\$650,000
	Renewal of effluent disposal mains (10)	Wyong South	\$140,000	Renewal of effluent disposal mains	Wyong South Charmhaven	\$140,000	Renewal of effluent disposal mains	Shire	\$140,000	Refurbish effluent disposal mains	Shire	\$140,000
	Replace Asbestos Cement Mains (11)	Shire	\$153,500	Replace Asbestos Cement Mains (11)	Shire	\$141,000	Replace Asbestos Cement Mains	Shire	\$141,000	Replace/Refurbish Asbestos Cement Mains (11)	Shire	\$141,000
	General mains renewal (12)	Shire	\$250,000	General Mains Renewal (12)	Shire	\$90,000	General Mains Renewal (12)	Shire	\$90,000	General Mains Renewal (12)	Shire	\$90,000
		Warnervale		Warnervale Town Centre (13)	Warnervale	\$2.500.000	Contract manner tenema. (12)	00	\$50,000	Contra mano renewa (12)	00	φοσίσου
	` ,	Warnervale	\$2,400,000			, , , , , , , , , , , ,						
			\$16,150,500			\$1,040,600			\$6,229,200			\$4,500,000
	Renewal of mechanical / electrical & civil equipment and facilities at treatment plants (14)	Bateau Bay		Refurbishment of mechanical / electrical & civil equipment and facilities at treatment plants (14)	Bateau Bay	\$90,100	Refurbishment of mechanical / electrical & civil equipment and facilities at treatment plants (14)	Bateau Bay	\$90,100	Refurbishment of mechanical / electrical & civil equipment and facilities at treatment plants (14)	Bateau Bay	\$150,000
		Toukley	\$500,000		Toukley	\$90,100		Toukley	\$175,100		Toukley	\$150,000
		Wyong South	\$90,100		Wyong South	\$90,100		Wyong South	\$91,000		Wyong South	\$150,000
		Gwandalan	\$90,100		Gwandalan	\$90,100		Gwandalan	\$91,000		Gwandalan	\$150,000
		Mannering Park			Mannering	\$90,100		Mannering	\$91,000		Mannering	\$150,000
		inamicing rank	ψ30,100		Park	ψ30,100		Park	ψ31,000		Park	ψ100,000
		Charmhaven	\$90,100		Charmhaven	\$90,100		Charmhaven	\$91,000		Charmhaven	\$150,000
	Augmentation of Wyong South STP (15)	Tuggerah	\$7,000,000				Sewage Treatment Plant Augmentations (15)	Gwandalan/M annering Park	\$3,500,000	Sewage Treatment Plant Augmentations (15)	Gwandalan/ Mannering Park	\$3,500,000
	Augmentation of Charmhaven STP (15)	Charmhaven	\$6,800,000									
	\ -7	Shire	\$100,000	Consultancies for design/documentation (16)	Shire	\$100,000	Consultancies for design/documentation (16)	Shire	\$100,000	Consultancies for design/documentation (16)	Shire	\$100,000
	Mannering Park Head of Works (20)	Mannering Park		Mannering Park Head of Works (20)	Mannering Park	\$400,000	Toukley Head of Works (20)	Toukley	\$2,000,000	, ,		
GENERAL			\$279,000			\$129,000			\$129,000			\$129,000
GENERAL	Upgrade telemetry central station (17)	Shire		Upgrade telemetry central station	Shire		Upgrade telemetry central station	Shire		Upgrade telemetry central station	Shire	\$12 <b>9,000</b> \$51,000
	Minor Plant & Office Equipment (18)	Shire	\$78,000	Minor Plant & Office Equipment (18)	Shire	\$78,000	Minor Plant & Office Equipment (18)	Shire	\$78,000	Minor Plant & Office Equipment (18)	Shire	\$78,000
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## Notes

Major works included above are:-

- (1) Pump station upgrades required due to a combination of increased sewage loads resulting from growth and ageing infrastructure. Item includes associated rising mains.
- (2) Replace heavy pump station lids with light weight lids as part of an occupational health and safety program to reduce the risk of injuries.
- (3) Install facilities to allow the connection of a generator in the event of an extended power failure as part of the risk managment programme.
  - This will allow the ready connection of a mobile generator in the event of a prolonged power outagereducing the risk of sewage overflows
- (4) Refurbish equipment in accordance with the asset management strategy, to ensure levels of service are maintained
- (5) Design/documentation by consultant for pump station upgrades required as a result of growth or assets nearing the end of their economic life.
- (6) Replace hardware/software supporting the telemetry system to ensure levels of service are maintained
- (7) Provide odour control facilities within the sewerage network to meet levels of service standards
- (8) Provide backup generators to manage risk of sewage overflows in accordance with the licence conditions issued by the EPA
- (9) Refurbish damaged sewers as part of asset maintenance programme
- (10) Refurbish steel effluent disposal mains which are experiencing corrosion due to deterioration of the protective wrappings.
- (11) Replace asbestos cement mains which no longer meet the defined level of service due to risk of failure
- (12) Refurbish/replace sewerage mains as part of asset maintenance programme
- (13) Fund the Warnervale Town Centre sewerage construction to facilitate development
- (14) Refurbish treatment plant facilities as part of asset maintenance programme
- (15) Augment sewage treatment works to cater for increased sewage loads resulting from growth.
- (16) Design/documentation of future treatment capacity and standards related upgrades required as a result of growth or changes in regulatory requirements
- (17) Upgrade hardware and software within the central control facility of the telemetry system to ensure the alarm and reporting functions meet the required levels of service
- (18) Provision for the replacement of office equipment and minor plant which have reached the end of their economic life
- (19) Provision of a gravity diversion of a portion of the WS9 catchment to service increased loads within the catchment
- (20) Provide odour control facilities within the sewage treatment plants to meet levels of service standards
- (21) Fund the Warnervale Employment Zone sewerage construction to facilitate development
- (22) Upgrade power supply to Scaddens Ridge communication facilities