



Chq/EFT	Date	Name	Description	Amount
20555	11/03/2022	Pivotel	GPS Tracking Service - Grader and Transfer Station Feb2022	-62.00
20556	28/03/2022	Pivotel	GPS Tracking Service - Grader and Transfer Station Mar2022	-62.00
TOTAL MUNI CHEQUES to 31 March 2022				-124.00



Chq/EFT	Date	Name	Description	Amount
EFT12127	04/03/2022		CANCELLED	0.00
EFT12128	04/03/2022	Water Corporation	2 Reid Pl FM House Water Account to 02/02/2022	-131.99
EFT12129	10/03/2022	Joyce Ann Bardoe	A2210 Rates Refund	-690.61
EFT12130	11/03/2022	A & M Medical Services Pty Ltd	Medical Centre - Annual Oxy Sok, Oxygen Regulator and Defib Service	-167.09
EFT12131	11/03/2022	AFGRI Equipment Australia Pty Ltd	P177 Tractor John Deere 5083E. Parts	-254.01
EFT12131	11/03/2022	AFGRI Equipment Australia Pty Ltd	P224 John Deere 622G Grader - Parts	-228.45
EFT12132	11/03/2022	Aaron J Piper (Dinninup Shearing)	Rylington Park - Shearing	-1,141.14
EFT12133	11/03/2022	Ampol Petroleum Distributors Pty Ltd (previously Caltex Energy WA)	Fuel Feb2022	-8,295.98
EFT12134	11/03/2022	Arrow Bronze	Niche Wall Plaque	-190.80
EFT12135	11/03/2022	Australia Post	Postage and Annual Box Rental Feb2022	-553.51
EFT12136	11/03/2022	Australian Services Union	Payroll Deductions	-51.80
EFT12137	11/03/2022	B&B Street Sweeping Pty Ltd	Townsite Street Sweeping	-3,228.50
EFT12138	11/03/2022	BKS Refrigeration & Airconditioning Pty Ltd	Medical Centre - Clean Air Conditioners	-1,320.00
EFT12139	11/03/2022	BOC Limited	Gas Cylinder Rental Mar2022	-57.92
EFT12140	11/03/2022	BP Medical	Medical Supplies	-900.87
EFT12141	11/03/2022	Ballantyne All Commercial Property Services	BB Citizens Lodge - Water System Upgrade	-39,592.30
EFT12142	11/03/2022	Black Box Control Pty Ltd	Monthly Grader Tracking Service Mar2022	-115.50
EFT12143	11/03/2022	Blackwood Veterinary Centre	Animal Impound Costs - Euthanasia Fees	-115.00
EFT12144	11/03/2022	Blackwoods (Also Refer Protector Alsafé)	Depot First Aid Kits	-437.61
EFT12145	11/03/2022	Boyle Farming (DP Boyle & KM Boyle t/as)	Rylington Park - Shearer Training	-4,158.55
EFT12146	11/03/2022	Boyup Brook Co - Operative	Rylington Park - Purchases Feb2022 incl Wool Packs and Fencing Supplies	-2,548.00
EFT12147	11/03/2022	Boyup Brook Community Resource Centre	Boyup Brook Gazette Advertising Mar2022	-215.00
EFT12148	11/03/2022	Boyup Brook Farm Supplies (Lakewood Downs Pty Ltd)	P146 Spray Units - Parts	-89.93
EFT12148	11/03/2022	Boyup Brook Farm Supplies (Lakewood Downs Pty Ltd)	Rylington Park - Truck Fuses	-4.95
EFT12149	11/03/2022	Boyup Brook IGA	Purchases Jan-Feb2022	-1,861.89
EFT12150	11/03/2022	Boyup Brook Tyre Service	P206 Triton Tip Tray Ute - Wheel Alignment	-99.00
EFT12151	11/03/2022	Bridgetown Muffler & Towbar Centre	P211 Isuzu Dmax Tray Back Utility - Parts	-697.50
EFT12151	11/03/2022	Bridgetown Muffler & Towbar Centre	P192 Mazda BT-50 - Parts	-265.50
EFT12152	11/03/2022	CSBP Limited	Rylington Park - Soil Testing	-529.10
EFT12153	11/03/2022	Childcare Centre Desktop	BBELC - Child Care Centre Desktop Annual Subscription	-397.00
EFT12154	11/03/2022	Cristina Kaisserian	Refund of Payment in Error	-275.00
EFT12155	11/03/2022	Department of Fire & Emergency Services	2021/21 Emergency Services Levy 3rd Quarter Contribution	-34,847.10
EFT12156	11/03/2022	Downer EDI Works Pty Ltd	BB Arthur Road Project - Road Sealing	-94,530.74
EFT12157	11/03/2022	Elders Rural Services Australia Pty Ltd	Rylington Park - 5in1 Bin	-17,600.00
EFT12158	11/03/2022	Erlanda and Mark Deas	Reimburse Rylington Park Zoom License for Ladies Day	-100.99
EFT12159	11/03/2022	Focus Networks	VMWare Annual Subscription 04/02/2022 to 03/02/2023	-223.23
EFT12159	11/03/2022	Focus Networks	Admin Printer - HP Colour Laserjet Pro	-1,379.40
EFT12160	11/03/2022	G&M Detergents	Swimming Pool Cleaning Supplies	-131.00
EFT12161	11/03/2022	Genie Solutions Pty Ltd	Medical Centre - Onsite Training Bundle	-1,463.00
EFT12161	11/03/2022	Genie Solutions Pty Ltd	Medical Centre Quarterly Licence and Support Fee Apr-Jun2022	-1,133.75
EFT12162	11/03/2022	Great Southern Shearing Pty Ltd	Rylington Park - Shearer Training	-4,175.05
EFT12163	11/03/2022	Hales Electrical	Flax Mill Caravan Park - Repair Washer and Dryer	-627.00
EFT12163	11/03/2022	Hales Electrical	Flax Mill Caravan Park - Replace Light Ensuite 3	-236.50
EFT12164	11/03/2022	Harding Contracting	Rylington Park - Shearer Training	-3,960.00
EFT12165	11/03/2022	Hastie Waste	Rylington Park - Bulk Waste Collection Feb2022	-95.00
EFT12166	11/03/2022	Haycom Technology	Medical Centre IT Consulting Fees Feb2022	-1,218.80
EFT12167	11/03/2022	IPEC Pty Ltd (Toll)	Freight Feb2022	-313.70
EFT12168	11/03/2022	Interfire Agencies	ESL VBFB PPE	-1,845.89
EFT12169	11/03/2022	Kojonup Agricultural Supplies (tff KAS Unit Trust t/as)	Rylington Park - Worm Egg Count	-48.40
EFT12170	11/03/2022	Lamat Cleaning Services	Various Shire Buildings - Cleaning Feb2022	-700.00
EFT12171	11/03/2022	Landgate	GRV Chargeable 07Aug2021 - 21Jan2022.	-139.11
EFT12172	11/03/2022	Mark & Maryanne Brivich	Swimming Pool - Repaint Froq	-240.00
EFT12173	11/03/2022	McLeods Barristers and Solicitors	Professional Fees - Matter 47488 - Gravel Extraction Payment.	-594.00
EFT12174	11/03/2022	Michael Little Healthcare Pty Ltd	Placement Fee - GP Search and Recruitment	-6,050.00
EFT12175	11/03/2022	Pratico Transport	Rylington Park - Freight Feb2022	-6,068.70
EFT12176	11/03/2022	Royal Life Saving Society WA Inc	Swimming Pool - Swim Lesson Certificates	-98.58
EFT12177	11/03/2022	SOS Office Equipment	Photocopier Billing Feb2022 including Community Newsletters	-1,030.29
EFT12178	11/03/2022	Southern Forest Home Improvements Pty Ltd	Rylington Park - House Re-Roof Deposit	-3,640.00
EFT12179	11/03/2022	Sprint Express	Freight Jan-Feb2022	-291.50
EFT12180	11/03/2022	Statewide Bearings	P201 Isuzu 3 tonne NH NPR 65-190 Truck - Parts	-343.35
EFT12181	11/03/2022	Stephen & Yvonne Dent	3 Reid Place MWS House - Water Account to 02/02/2022	-232.38
EFT12182	11/03/2022	Stewart & Heaton Clothing Co. Pty Ltd	ESL VBFB PPE	-4,222.68
EFT12183	11/03/2022	Synergy (Electricity Generation and Retail Corporation t/as)	Electricity Across Shire Facilities to 11/02/2022	-9,968.64
EFT12184	11/03/2022	T-Quip	P228 Toro Z Master 7000 52inch - Parts	-215.75
EFT12185	11/03/2022	Telstra Corporation Limited	Telephone Across Shire Facilities to 01/03/2022	-2,725.64
EFT12186	11/03/2022	The Bunbury Doicesan Trustees and Anglican Parish of Boyup Brook	18 Barron St GP House Rent 28/02/2022-14/03/2022	-600.00
EFT12187	11/03/2022	The Trustee for AJ & DS Painting Contractors Trading Trust	Tourist Centre - Paint External Toilets	-440.00
EFT12187	11/03/2022	The Trustee for AJ & DS Painting Contractors Trading Trust	Medical Centre - Paint Examination Room	-990.00
EFT12188	11/03/2022	Top Gun Shearing Supplies (The Lawrence Family Trust t/as)	Rylington Park - Handpiece Parts	-106.04
EFT12189	11/03/2022	Truckline (Bunbury)	P166 Semi Tipper Trailer - Parts	-90.30
EFT12190	11/03/2022	WALGA	2022 Desk Pad Calendars	-40.80
EFT12191	11/03/2022	Winc Australia Pty Limited	Depot - Stationery	-29.22
EFT12192	11/03/2022	activ8me (Australian Private Networks Pty Ltd)	GP House and Rylington Park Internet and Phone Feb-Mar2022	-213.94
EFT12193	21/03/2022	AFGRI Equipment Australia Pty Ltd	Garden Expendable Tools	-79.00
EFT12194	21/03/2022	Amity Signs	Road and Traffic Signs	-2,659.80
EFT12195	21/03/2022	Ampol Petroleum Distributors Pty Ltd (previously Caltex Energy WA)	Fuel Mar2022	-6,062.82
EFT12196	21/03/2022	Australian Services Union	Payroll Deductions	-51.80
EFT12197	21/03/2022	Blackwoods (Also Refer Protector Alsafé)	Depot PPE and First Aid Supplies	-711.09



Chq/EFT	Date	Name	Description	Amount
EFT12198	21/03/2022	Boyup Brook Districts Pioneer Museum Inc	Annual Support for Running Costs per MoU	-5,500.00
EFT12199	21/03/2022	Boyup Brook IGA	Rylington Park - Shearing School Catering Feb2022	-1,250.67
EFT12200	21/03/2022	Bridgetown Muffler & Towbar Centre	Oils	-680.00
EFT12200	21/03/2022	Bridgetown Muffler & Towbar Centre	P214 Isuzu Giga CX7 455 Prime Mover - Parts	-57.50
EFT12200	21/03/2022	Bridgetown Muffler & Towbar Centre	P225 Isuzu Giga Prime Mover - Parts	-57.50
EFT12201	21/03/2022	Bridgetown Timber Sales	18 Barron St GP House - Entrance Lock Sets	-68.40
EFT12201	21/03/2022	Bridgetown Timber Sales	Abel Street Shop 2 - Entrance Lock	-91.80
EFT12202	21/03/2022	Building and Construction Training Fund BCITF	BCITF Collected Feb2022	-897.83
EFT12203	21/03/2022	Bunnings Group Ltd	Works PPE - Shade Marquees	-207.00
EFT12204	21/03/2022	CB Traffic Solutions	RRG148 BB Cranbrook Rd - TMP	-715.00
8984	13/03/2022	CB Traffic Solutions	RRG004 Winneup Rd - TMP	-715.00
EFT12205	21/03/2022	Centurion Garage Doors Pty Ltd	West Boyup BFB - Battery Backup Door Motors	-2,391.99
EFT12206	21/03/2022	Community Mental Health Action Team (CoMHAT) Inc	Community Grant Funding 2021/22 - Wellness Festival	-5,500.00
EFT12207	21/03/2022	Country Landscaping & Irrigation	Reticulation Supplies	-1,303.50
EFT12208	21/03/2022	DSAK Pty Ltd (Manjimup and Bridgetown Retraivision)	Swimming Pool - Key Cutting	-20.21
EFT12209	21/03/2022	Department of Mines, Industry Regulation and Safety BSL	BSL Collected Feb2022	-900.22
EFT12210	21/03/2022	Focus Networks	Admin - Business Desktop Computer and Monitor	-2,091.10
EFT12210	21/03/2022	Focus Networks	Monthly Device Management Fees Mar2022	-2,750.00
EFT12210	21/03/2022	Focus Networks	Monthly Managed Services Mar2022	-795.85
EFT12210	21/03/2022	Focus Networks	Microsoft Office 365 and Project Plan Monthly Subscription 21/03/2021 - 21/04/2022	-644.74
EFT12211	21/03/2022	Internode Pty Ltd	Depot, Admin and BBELC Internet Apr2022	-329.97
EFT12212	21/03/2022	Jomar (WA) Pty Ltd	0740 BB Arthur Road Bridge - Preventative Maintenance	-53,933.00
EFT12212	21/03/2022	Jomar (WA) Pty Ltd	3310 Westcliffe Road Bridge - Preventative Maintenance	-21,824.00
EFT12213	21/03/2022	Kingspan Water & Energy Pty Limited	Rylington Park - Water Tank Progress Payment	-9,538.21
EFT12214	21/03/2022	Neverfail Springwater Limited	Council Chambers Water and Annual Cooler Rental	-268.85
EFT12214	21/03/2022	Neverfail Springwater Limited	Depot - Water	-27.20
EFT12215	21/03/2022	SUEZ Recycling and Recovery Pty Ltd (NSW)	Paper and Cardboard Recycling Collection Feb2022	-1,169.67
EFT12216	21/03/2022	Shire of Boyup Brook	BSL and BCITF Commission Feb2022	-64.75
EFT12217	21/03/2022	St John Ambulance Australia WA Ambulance	Australia Day - First Aid Post	-180.00
EFT12218	21/03/2022	Stewart & Heaton Clothing Co. Pty Ltd	ESL VFBF PPE	-284.90
EFT12219	21/03/2022	Suez Recycling & Recovery (Perth) Pty Ltd	Waste Collection Feb2022	-7,331.63
EFT12220	21/03/2022	Synergy (Electricity Generation and Retail Corporation t/as)	Electricity Across Shire Facilities to 27/02/2022	-4,150.18
EFT12221	21/03/2022	The Right Stuff for Landholders	Reticulation Supplies	-377.07
EFT12222	21/03/2022	Totally Workwear - Bunbury	Depot - PPE	-209.00
EFT12223	21/03/2022	WA College of Agriculture - Denmark	Rylington Park - Aq School Scholarships 2022 for BBDHS Students	-800.00
EFT12224	21/03/2022	WA College of Agriculture - Harvey	Rylington Park - Aq School Scholarships 2022 for BBDHS Students	-1,900.00
EFT12225	21/03/2022	WA College of Agriculture - Narrogin	Rylington Park - Aq School Scholarships 2022 for BBDHS Students	-2,000.00
EFT12226	21/03/2022	WALGA	Rapid Antigen Tests	-1,782.00
EFT12227	21/03/2022	Winc Australia Pty Limited	Admin/Depot - Stationery	-276.54
EFT12228	25/03/2022	Muresk Institute	Ranger - Animal Welfare Training	-3,135.00
EFT12229	28/03/2022	A & M Medical Services Pty Ltd	Swimming Pool - Annual Oxy-Sok Service	-111.60
EFT12230	28/03/2022	Ampol Petroleum Distributors Pty Ltd (previously Caltex Energv WA)	Fuel Mar2022	-8,234.44
EFT12231	28/03/2022	Blackwood Plant Hire	RRG210 BB Arthur Road Project.	-9,405.00
EFT12232	28/03/2022	Boyup Brook Co - Operative	Purchases Feb2022	-1,777.03
EFT12233	28/03/2022	Boyup Brook Tyre Service	P211 Isuzu Dmax Tray Back Utility - Battery	-240.00
EFT12234	28/03/2022	Bridgetown Boarding Kennels & Cattery	Animal Impound Fees Mar2022	-500.50
EFT12235	28/03/2022	Bridgetown Muffler & Towbar Centre	P211 Isuzu Dmax Tray Back Utility - Parts	-550.00
EFT12236	28/03/2022	Brooks Hire Service Pty Ltd	RRG210 BB Arthur Road - Roller Hire Feb2022	-1,916.42
EFT12237	28/03/2022	Country Landscaping & Irrigation	Reticulation Supplies	-793.60
EFT12238	28/03/2022	DSAK Pty Ltd (Manjimup and Bridgetown Retraivision)	Medical Centre - Keys and Tags	-62.87
EFT12239	28/03/2022	Erlanda and Mark Deas	Reimburse Rylington Park Storage and Catering Items	-276.21
EFT12240	28/03/2022	Focus Networks	Managed Recovery Service - Setup and Monthly Fee Mar2022	-2,354.00
EFT12240	28/03/2022	Focus Networks	Admin - Computer Equipment	-13,714.80
EFT12241	28/03/2022	G&M Detergents	Various Shire Buildings - Cleaning Supplies	-202.00
EFT12242	28/03/2022	Garvey Investments Pty Ltd t/as ARB Bunbury	Various Plant - Two-Way Radios	-840.00
EFT12243	28/03/2022	Hales Electrical	Swimming Pool - Damaged Cable Repairs	-242.00
EFT12243	28/03/2022	Hales Electrical	Flax Mill Caravan Park - Ablutions Sub Board Testing	-220.00
EFT12243	28/03/2022	Hales Electrical	LRCI Rec Grounds Oval Lights - Final Payment	-21,690.00
EFT12244	28/03/2022	IPEC Pty Ltd (Toll)	Freight Feb-Mar2022	-58.01
EFT12245	28/03/2022	Kings Tree Care (BH Jorgensen & TJ King t/as)	Flax Mill Caravan Park - Arborist Report	-693.00
EFT12246	28/03/2022	Mildred Chiwara	Reimburse Childcare per Employment Contract	-1,193.05
EFT12247	28/03/2022	Neverfail Springwater Limited	Depot Water	-42.05
EFT12248	28/03/2022	Officeworks Superstores Pty Ltd	BBELC - Telephones	-94.95
EFT12249	28/03/2022	Old Dog Dirt & Diesel	P999 Brooks Hire Roller - Replace Stolen Radio	-149.95
EFT12250	28/03/2022	Rear's Electrical & Mechanical Services Pty Ltd	P146 Small Plant - Test Flax Mill Water Pump	-150.89
EFT12250	28/03/2022	Rear's Electrical & Mechanical Services Pty Ltd	Flax Mill Caravan Park - Replace Damaged Ensuite Lights	-339.77
EFT12250	28/03/2022	Rear's Electrical & Mechanical Services Pty Ltd	Music Park - Replace Damaged Power Points	-259.49
EFT12251	28/03/2022	Sigma Chemicals (Sigma Companies Group Pty Ltd)	Swimming Pool Supplies	-491.15
EFT12252	28/03/2022	South West Compressors Pty Ltd	Annual Compressor Service - Puma P20 & McMillan CP19	-785.95
EFT12253	28/03/2022	Synergy (Electricity Generation and Retail Corporation t/as)	Electricity Across Shire Facilities to 10/02/2022	-122.76
EFT12254	28/03/2022	T-Quip	P228 Toro Z Master 7000 52inch - Parts	-215.80
EFT12255	28/03/2022	The Brook Takeaway	Catering Mar2022	-75.00
EFT12256	28/03/2022	The Right Stuff for Landholders	Reticulation Supplies	-60.24
EFT12257	28/03/2022	Treehouse Coffee Lounge (Webb & Troeger)	Catering Mar2022	-33.00
EFT12258	28/03/2022	Truckline (Bunbury)	P222 Mitsubishi Fuso 18000L Water Cart - Parts	-1,548.87
EFT12259	28/03/2022	WALGA	Councillor E-Learning Feb2022	-3,217.50
EFT12260	28/03/2022	Winc Australia Pty Limited	BBELC - Printer Cartridges	-1,042.61

TOTAL EFT PAYMENTS to 31 March 2022

-491,104.27



Chq/EFT	Date	Name	Description	Amount
DD7112.1	02/03/2022	Sam & Carolyn Mallett Super Fund	Superannuation Contributions	-473.23
DD7112.2	02/03/2022	Public Sector Superannuation Accumulation Plan	Superannuation Contributions	-266.00
DD7112.3	02/03/2022	Aware Super	Payroll Deductions	-8,226.81
DD7112.4	02/03/2022	Rest Superannuation	Superannuation Contributions	-2,263.73
DD7112.5	02/03/2022	AMP Super Fund - SignatureSuper	Superannuation Contributions	-2,168.09
DD7112.6	02/03/2022	Australian Super	Superannuation Contributions	-1,780.76
DD7112.7	02/03/2022	Commonwealth Essential Super	Superannuation Contributions	-363.52
DD7112.8	02/03/2022	Colonial First State Superannuation	Superannuation Contributions	-469.08
DD7112.9	02/03/2022	MLC Super Fund	Superannuation Contributions	-236.04
DD7114.1	03/03/2022	Salary & Wages	Payroll 02Mar2022	-94,449.32
DD7120.1	02/03/2022	Australian Super	Superannuation Contributions	-108.46
DD7122.1	04/03/2022	Salary & Wages	Payroll 04Mar2022	-836.61
DD7148.1	16/03/2022	Sam & Carolyn Mallett Super Fund	Superannuation Contributions	-493.88
DD7148.2	16/03/2022	Public Sector Superannuation Accumulation Plan	Superannuation Contributions	-266.00
DD7148.3	16/03/2022	Sunsuper Pty Ltd	Superannuation Contributions	-66.38
DD7148.4	16/03/2022	Aware Super	Payroll Deductions	-7,893.92
DD7148.5	16/03/2022	Rest Superannuation	Superannuation Contributions	-2,265.33
DD7148.6	16/03/2022	AMP Super Fund - SignatureSuper	Superannuation Contributions	-2,165.21
DD7148.7	16/03/2022	Australian Super	Superannuation Contributions	-1,959.64
DD7148.8	16/03/2022	Commonwealth Essential Super	Superannuation Contributions	-324.22
DD7148.9	16/03/2022	Colonial First State Superannuation	Superannuation Contributions	-435.21
DD7150.1	17/03/2022	Salary & Wages	Payroll 16Mar2022	-94,611.50
DD7159.1	16/03/2022	Australian Super	Superannuation Contributions	-490.73
DD7161.1	23/03/2022	Salary & Wages	Payroll 23Mar2022	-3,664.92
DD7172.1	30/03/2022	Sam & Carolyn Mallett Super Fund	Superannuation Contributions	-427.82
DD7172.2	30/03/2022	Public Sector Superannuation Accumulation Plan	Superannuation Contributions	-266.00
DD7172.3	30/03/2022	Aware Super	Payroll Deductions	-7,850.09
DD7172.4	30/03/2022	Rest Superannuation	Superannuation Contributions	-2,194.11
DD7172.5	30/03/2022	AMP Super Fund - SignatureSuper	Superannuation Contributions	-2,200.36
DD7172.6	30/03/2022	Australian Super	Superannuation Contributions	-1,977.27
DD7172.7	30/03/2022	Commonwealth Essential Super	Superannuation Contributions	-319.99
DD7172.8	30/03/2022	Colonial First State Superannuation	Superannuation Contributions	-502.89
DD7172.9	30/03/2022	MLC Super Fund	Superannuation Contributions	-236.04
DD7174.1	31/03/2022	Salary & Wages	Payroll 30Mar2022	-95,898.57
DD7182.1	01/03/2022	Westnet	Admin, Swimming Pool and Medical Centre Internet Mar2022	-289.85
DD7182.2	11/03/2022	The Bunbury Diocesan Trustees and Anglican	18 Barron St GP House - Rent 15/03/2022-28/03/2022	-600.00
DD7182.3	25/03/2022	The Bunbury Diocesan Trustees and Anglican	18 Barron St GP House - Rent 29/03/2022-11/04/2022	-600.00
DD7182.4	09/03/2022	De Lage Landen Pty Ltd	Rental Agreement for Photocopier DCVII-C5573 Mar2022	-184.80
DD7182.5	14/03/2022	Western Australian Treasury Corporation	Loan 115 - 3 Rogers Ave	-4,712.81
DD7182.6	23/03/2022	AGDATA Holdings Pty Ltd	Rylington Park - Phoenix Accounting Software Mar2022	-44.00
DD7182.7	11/03/2022	Michelle Koster and Stephen Hughes	2 Reid PI FM House - Rent 28/03/2022-10/04/2022	-660.00
DD7182.8	25/03/2022	Michelle Koster and Stephen Hughes	2 Reid PI FM House - Rent 11/04/2022-24/04/2022	-660.00
DD7182.9	11/03/2022	Stephen & Yvonne Dent	3 Reid PI MWS House - Rent 24/03/2022-06/04/2022	-600.00
DD7186.1	30/03/2022	Australian Super	Superannuation Contributions	-40.91
DD7112.1	02/03/2022	HESTA	Superannuation Contributions	-347.99
DD7148.1	16/03/2022	MLC Super Fund	Superannuation Contributions	-236.64
DD7148.1	16/03/2022	HESTA	Superannuation Contributions	-347.99
DD7172.1	30/03/2022	HESTA	Superannuation Contributions	-371.34
DD7181.1	28/02/2022	Shire of Boyup Brook	Smartsheet Annual Subscription 26/02/2022 to 25/02/2023	-3,168.00
DD7181.2	25/02/2022	Shire of Boyup Brook	Seek Job Ad - Medical Practice Nurse 25/02/2022	-313.50
DD7181.3	24/02/2022	Shire of Boyup Brook	Adobe Acrobat Pro Subscription 24/01/2022-23/01/2023	-299.90
DD7182.1	25/03/2022	Stephen & Yvonne Dent	3 Reid PI MWS House - Rent 07/04/2022-20/04/2022	-600.00
TOTAL DD MUNI ACCOUNT TO 31 March 2022				-352,229.46
DD310322	31/03/2022	Police Licensing	Police Claimed March 2022	-48,971.75
TOTAL DD POLICE LICENSING ACCOUNT TO 31 March 2022				-48,971.75
TOTAL DD BOYUP BROOK EARLY LEARNING CENTRE ACCOUNT TO 31 March 2022				0.00
SUMMARY				
CHQ (Muni Account)				-124.00
DD				-352,229.46
EFT				-491,104.27
TOTAL				-843,457.73
ALL MUNI TRANS TO 31 March 2022				-843,457.73
DD (Police Licensing Account) TO 31 March 2022				-48,971.75
DD (Boyup Brook Early Learning Centre) TO 31 March 2022				0.00



SHIRE OF BOYUP BROOK

MONTHLY FINANCIAL REPORT

31 MARCH 2022

TABLE OF CONTENTS

STATEMENT OF COMPREHENSIVE INCOME - BY PROGRAM

STATEMENT OF COMPREHENSIVE INCOME - BY NATURE/TYPE

STATEMENT OF FINANCIAL ACTIVITY BY PROGRAM

STATEMENT OF FINANCIAL ACTIVITY BY NATURE/TYPE

STATEMENT OF NET CURRENT POSITION

STATEMENT OF MATERIAL VARIANCES

STATEMENT OF FINANCIAL POSITION

STATEMENT OF CASH FLOWS

DETAILED OPERATING AND NON-OPERATING STATEMENT

SUPPLEMENTARY INFORMATION

- RESERVE ACCOUNTS

- LOAN SCHEDULE

SHIRE OF BOYUP BROOK
STATEMENT OF COMPREHENSIVE INCOME
FOR THE PERIOD ENDING 31 MARCH 2022

	2021-22 ANNUAL BUDGET	2021-22 YTD ACTUAL
EXPENDITURE (Excluding Finance Costs)	\$	\$
General Purpose Funding	(137,370)	(73,734)
Governance	(403,128)	(247,415)
Law, Order, Public Safety	(400,084)	(306,153)
Health	(1,569,527)	(877,994)
Education and Welfare	(319,914)	-228,349
Housing	(152,907)	(61,362)
Community Amenities	(469,520)	(297,745)
Recreation and Culture	(1,117,428)	(622,215)
Transport	(3,976,680)	(1,086,909)
Economic Services	(651,458)	(283,674)
Other Property and Services	(688,914)	(245,340)
	(9,886,930)	(4,330,889)
REVENUE		
General Purpose Funding	3,867,689	3,726,187
Governance	0	250
Law, Order, Public Safety	158,689	70,942
Health	1,108,380	663,490
Education and Welfare	165,000	133,149
Housing	76,174	192,310
Community Amenities	223,600	223,716
Recreation and Culture	50,694	63,222
Transport	202,981	198,454
Economic Services	107,077	93,386
Other Property & Services	778,777	947,162
	6,739,061	6,312,268
<i>Increase/(Decrease)</i>	(3,147,869)	1,981,379
FINANCE COSTS		
Housing	(2,268)	(2,267)
Recreation & Culture	(4,132)	(4,132)
Other Property & Services	(2,125)	0
Total Finance Costs	(8,525)	(6,399)
NON-OPERATING REVENUE		
Recreation & Culture	192,221	67,154
Transport	1,945,165	401,654
Economic Services	521,820	0
Total Non-Operating Revenue	2,659,206	468,808
PROFIT/(LOSS) ON SALE OF ASSETS		
Housing Profit	0	0
Transport Profit	0	0
Transport Loss	0	0
Total Profit/(Loss)	0	0
NET RESULT	(497,188)	2,443,787
Other Comprehensive Income		
Changes on revaluation of non-current assets	0	0
Total Abnormal Items	0	0
TOTAL COMPREHENSIVE INCOME	(497,188)	2,443,787

SHIRE OF BOYUP BROOK
STATEMENT OF COMPREHENSIVE INCOME
BY NATURE/TYPE
FOR THE PERIOD ENDING 31 MARCH 2022

	2021-22 ORIGINAL BUDGET	2021-22 YTD ACTUAL
Expenses		
Employee Costs	(3,136,286)	(2,643,188)
Materials and Contracts	(2,352,591)	(1,049,433)
Utility Charges	(221,024)	(130,855)
Depreciation on Non-Current Assets	(3,586,939)	0
Interest Expenses	(8,525)	(6,399)
Insurance Expenses	(244,831)	(232,682)
Other Expenditure	(345,259)	(274,732)
	(9,895,455)	(4,337,289)
Revenue		
Rates	3,142,969	3,149,305
Operating Grants, Subsidies and Contributions	1,032,368	956,752
Fees and Charges	1,736,814	1,215,725
Interest Earnings	32,100	24,482
Other Revenue	794,810	966,005
	6,739,061	6,312,268
	(3,156,394)	1,974,980
Non-Operating Grants, Subsidies & Contributions	2,659,206	468,808
Profit on Asset Disposals	0	0
Loss on Asset Disposals	0	0
	2,659,206	468,808
Net Result	(497,188)	2,443,787
Other Comprehensive Income		
Changes on revaluation of non-current assets	0	0
Total Other Comprehensive Income	0	0
TOTAL COMPREHENSIVE INCOME	(497,188)	2,443,787

SHIRE OF BOYUP BROOK
BUDGET REVIEW FINANCIAL ACTIVITY STATEMENT BY FUNCTION/PROGRAM
FOR THE PERIOD ENDING 31 MARCH 2022

	2021-22 ORIGINAL BUDGET	2021-22 AMENDED BUDGET	2021-22 YTD BUDGET (a)	2021-22 YTD ACTUAL (b)	MATERIAL \$ (b)-(a)	MATERIAL % (b)-(a)/(a)	VAR
OPERATING REVENUE	\$	\$	\$	\$			
General Purpose Funding	725,725	776,119	542,441	576,882	34,442	Within Threshold	▲
Governance	0	250	0	250	Within Threshold	0%	▲
Law, Order Public Safety	158,689	161,163	139,388	70,942	(68,446)	49%	
Health	1,108,380	1,201,956	782,387	663,490	(118,898)	15%	
Education and Welfare	165,000	185,000	137,528	133,149	Within Threshold	Within Threshold	▲
Housing	76,174	75,424	59,107	192,310	133,203	225%	▲
Community Amenities	223,600	221,248	219,836	223,716	Within Threshold	Within Threshold	▲
Recreation and Culture	50,694	59,573	50,292	63,222	12,930	26%	▲
Transport	202,981	203,240	194,716	198,454	Within Threshold	Within Threshold	▲
Economic Services	107,077	104,006	86,636	93,386	Within Threshold	Within Threshold	▲
Other Property and Services	778,777	943,235	582,009	947,162	365,153	63%	▲
	3,597,097	3,931,214	2,794,339	3,162,964	358,384		
LESS OPERATING EXPENDITURE							
General Purpose Funding	(137,370)	(137,370)	(93,036)	(73,734)	19,301	21%	▲
Governance	(403,128)	(406,157)	(324,875)	(247,415)	77,461	24%	▲
Law, Order, Public Safety	(400,084)	(475,835)	(311,750)	(306,153)	Within Threshold	Within Threshold	▲
Health	(1,569,527)	(1,569,363)	(1,035,223)	(877,994)	157,228	15%	▲
Education and Welfare	(319,914)	(307,985)	(239,806)	(228,349)	11,457	Within Threshold	▲
Housing	(155,175)	(143,306)	(131,166)	(63,629)	67,537	51%	▲
Community Amenities	(469,520)	(464,652)	(352,485)	(297,745)	54,740	16%	▲
Recreation and Culture	(1,121,560)	(1,247,931)	(842,776)	(626,347)	216,429	26%	▲
Transport	(3,976,680)	(4,317,028)	(2,866,303)	(1,086,909)	1,779,394	62%	▲
Economic Services	(651,458)	(713,968)	(443,428)	(283,674)	159,754	36%	▲
Other Property & Services	(691,039)	(772,993)	(405,886)	(245,340)	160,546	40%	▲
	(9,895,455)	(10,556,588)	(7,046,735)	(4,337,289)	2,703,848		
<i>Increase(Decrease)</i>	(6,298,358)	(6,625,374)	(4,252,396)	(1,174,325)	3,062,233		
NON-CASH OPERATING ACTIVITIES EXCLUDED FROM BUDGET							
Movement in Employee Provisions (Non-current)	40,045	40,045	0	0	Within Threshold	0%	▲
(Profit)/ Loss on the disposal of assets	0	0	0	0	Within Threshold	0%	▲
Depreciation Written Back	3,586,939	3,586,939	2,605,223	0	(2,605,223)	100%	
	3,626,984	3,626,984	2,605,223	0	(2,605,223)		
<i>Sub Total</i>	(2,671,374)	(2,998,390)	(1,647,174)	(1,174,325)	457,010		
INVESTING ACTIVITIES							
Purchase of Land	0		(170,000)	(219,627)	(49,627)	(29%)	
Purchase Buildings	(484,544)	(564,740)	(314,544)	(256,962)	57,582	18%	
Purchase Plant and Equipment	(928,500)	(634,719)	(928,500)	(200,819)	727,681	78%	
Purchase Furniture and Equipment	0	0	0	0	Within Threshold	0%	
Infrastructure Assets - Roads	(2,637,451)	(2,285,834)	(2,486,373)	(1,018,317)	1,468,056	59%	
Infrastructure Assets - Footpaths	(143,850)	(68,250)	(143,850)	0	143,850	100%	
Infrastructure Assets - Aerodromes	(49,575)	(49,575)	(49,575)	0	49,575	100%	
Infrastructure Assets - Drainage	(49,875)	(49,875)	(44,672)	(606)	44,066	99%	
Infrastructure Assets - Parks & Ovals	(11,300)	(11,300)	(11,300)	(6,374)	Within Threshold	44%	
Infrastructure Assets - Recreation	(497,964)	(379,863)	(294,559)	(228,410)	66,149	22%	
Infrastructure Assets - Other	(646,820)	(193,133)	(273,728)	(18,594)	255,134	93%	
Proceeds from Sale of Assets	62,500	42,227	62,500	27,273	(35,227)	(56%)	
Contributions for the Development of Assets	2,659,206	1,936,524	1,739,268	468,808	(1,270,461)	(73%)	
Amount Attributable to Investing Activities	(2,728,173)	(2,258,538)	(2,915,333)	(1,453,629)	1,456,778		
FINANCING ACTIVITIES							
Repayment of Debt - Loan Principal	(27,711)	(26,228)	(19,040)	(20,178)	Within Threshold	Within Threshold	
Transfer to Reserves	(138,704)	(359,204)	(3,750)	(1,369)	Within Threshold	173.92%	▲
Amount Attributable to Financing Activities	(166,415)	(385,432)	(22,790)	(21,547)	0		
<i>Sub Total</i>	(5,565,962)	(5,642,360)	(4,585,296)	(2,649,501)	1,913,788		
FUNDING FROM							
Transfer from Reserves	135,997	309,130	0	0	Within Threshold	0%	
Loans Raised	170,000	0	170,000	0	(170,000)	(100%)	▼
Estimated Opening Surplus at 1 July	2,118,000	2,248,459	2,118,000	2,248,459	130,459	Within Threshold	▲
Amount Raised from General Rates	3,141,964	3,141,074	3,141,964	3,149,305	Within Threshold	Within Threshold	▲
Closing Funds	0	0	0	0	Within Threshold	0%	▲
	5,565,961	5,698,663	5,429,964	5,397,764	(39,541)		
NET SURPLUS/(DEFICIT)	(1)	56,303	844,668	2,748,263			

SHIRE OF BOYUP BROOK
FINANCIAL ACTIVITY STATEMENT BY NATURE/TYPE
FOR THE PERIOD ENDING 31 MARCH 2022

		2021-22 ORIGINAL BUDGET	2021-22 AMENDED BUDGET	2021-22 YTD BUDGET (a)	2021-22 YTD ACTUAL (b)	MATERIAL \$ (b)-(a)	MATERIAL % (b)-(a)/(a)	VAR
	Code							
OPERATING REVENUE		\$	\$	\$	\$			
Ex-Gratia Rates & Write-offs	19	1,005	8,658	1,068	7653	Within Threshold	(617%)	
Operating Grants, Subsidies and Contributions	11	1,032,368	1,085,697	839,996	956,752	116,756	(12.20%)	
Fees and Charges	14	1,736,814	1,847,832	1,338,079	1,215,725	(122,354)	10.06%	
Interest Earnings	16	32,100	23,700	25,558	24,482	Within Threshold	Within Threshold	
Other Revenue	17	794,810	965,327	589,638	966,005	376,367	(38.96%)	
Profit on Disposal of Asset	18	0	0	0	0	Within Threshold	0%	
		3,597,097	3,931,214	2,794,339	3,170,617	370,769		
LESS OPERATING EXPENDITURE								
Employee Costs	30	(3,136,286)	(3,249,255)	(2,133,329)	(2,394,482)	(261,153)	(10.91%)	
Materials and Contracts	32	(2,352,591)	(2,936,354)	(1,577,636)	(1,298,139)	279,498	(21.53%)	
Utility Charges	34	(221,024)	(210,199)	(157,301)	(130,855)	26,446	20.21%	
Depreciation on Non-Current Assets	33	(3,586,939)	(3,586,939)	(2,605,223)	0	2,605,223	0%	
Interest Expenses	36	(8,525)	(6,400)	(7,536)	(6,399)	Within Threshold	17.76%	
Insurance Expenses	35	(244,831)	(244,855)	(242,283)	(232,682)	Within Threshold	Within Threshold	
Other Expenditure	37	(345,259)	(322,586)	(323,427)	(274,732)	48,696	17.72%	
Loss on Disposal of Asset	38	0	0	0	0	Within Threshold	0.00%	
		(9,895,455)	(10,556,588)	(7,046,735)	(4,337,289)	2,698,709		
<i>Increase(Decrease)</i>		(6,298,358)	(6,625,374)	(4,252,396)	(1,166,672)	3,069,477		
NON-CASH OPERATING ACTIVITIES EXCLUDED FROM BUDGET								
Movement in Employee Provisions (Non-current)		40,045	40,045	0	0	Within Threshold	0.00%	
(Profit)/ Loss on the disposal of assets		0	0	0	0	Within Threshold	0.00%	
Depreciation Written Back		3,586,939	3,586,939	2,605,223	0	(2,605,223)	0.00%	
		3,626,984	3,626,984	2,605,223	0	(2,605,223)		
<i>Sub Total</i>		(2,671,374)	(2,998,390)	(1,647,174)	(1,166,672)	464,255		
INVESTING ACTIVITIES								
Purchase of Land		0		(170,000)	(219,627)	(49,627)	22.60%	
Purchase Buildings		(484,544)	(564,740)	(314,544)	(256,962)	57,582	(22.41%)	
Purchase Plant and Equipment		(928,500)	(634,719)	(928,500)	(200,819)	727,681	(362.36%)	
Purchase Furniture and Equipment		0	0	0	0	Within Threshold	0.00%	
Infrastructure Assets - Roads		(2,637,451)	(2,285,834)	(2,486,373)	(1,018,317)	1,468,056	(144.16%)	
Infrastructure Assets - Footpaths		(143,850)	(68,250)	(143,850)	0	143,850	0.00%	
Infrastructure Assets - Aerodromes		(49,575)	(49,575)	(49,575)	0	49,575	0.00%	
Infrastructure Assets - Drainage		(49,875)	(49,875)	(44,672)	(606)	44,066	(7271.62%)	
Infrastructure Assets - Parks & Ovals		(11,300)	(11,300)	(11,300)	(6,374)	Within Threshold	(77.29%)	
Infrastructure Assets - Recreation		(497,964)	(379,863)	(294,559)	(228,410)	66,149	(28.96%)	
Infrastructure Assets - Other		(646,820)	(193,133)	(273,728)	(18,594)	255,134	1372.13%	
Proceeds from Sale of Assets		62,500	42,227	62,500	27,273	(35,227)	(129.17%)	▲
Contributions for the Development of Assets	13	2,659,206	1,936,524	1,739,268	468,808	(1,270,461)	271.00%	▼
Amount Attributable to Investing Activities		(2,728,173)	(2,258,538)	(2,915,333)	(1,453,629)	1,456,778		
FINANCING ACTIVITIES								
Repayment of Debt - Loan Principal		(27,711)	(26,228)	(19,040)	(20,178)	Within Threshold	Within Threshold	▲
Transfer to Reserves		(138,704)	(359,204)	(3,750)	(1,369)	Within Threshold	(173.92%)	
Amount Attributable to Financing Activities		(166,415)	(385,432)	(22,790)	(21,547)	0		
<i>Sub Total</i>		(5,565,962)	(5,642,360)	(4,585,296)	(2,641,848)	1,921,032		
FUNDING FROM								
Transfer from Reserves		135,997	309,130	0	0	Within Threshold	0%	▲
Loans Raised		170,000	0	170,000	0	(170,000)	0%	
Estimated Opening Surplus at 1 July		2,118,000	2,248,459	2,118,000	2,248,459	130,459	Within Threshold	▲
Amount Raised from General Rates	10	3,141,964	3,141,074	3,141,964	3,141,652	Within Threshold	Within Threshold	▲
Closing Funds		0	0	0	0	Within Threshold	0%	▲
		5,565,961	5,698,663	5,429,964	5,390,111	(39,541)		
NET SURPLUS/(DEFICIT)		(1)	56,303	844,668	2,748,263			

SHIRE OF BOYUP BROOK
SUMMARY OF CURRENT ASSETS AND LIABILITIES
FOR THE PERIOD ENDING 31 MARCH 2022

	ACTUAL 31 MARCH 2022
<u>Current Assets</u>	
Cash at bank and on Hand	3,114,800
Restricted Cash	87,063
Restricted Cash Reserves	2,390,698
Trade Receivables	1,393,542
Stock on Hand	702,685
Total Current Assets	7,688,788
<u>Current Liabilities</u>	
Trade Creditors	(\$682,751)
Bonds and Deposits	(\$140,523)
Accrued Wages	(\$64,569)
Accrued Interest on Loans	(\$2,392)
Accrued Expense	(\$62,318)
ATO Liabilities	\$0
Contract Liability	(\$685,660)
Loan Liability	\$0
Provisions	(\$338,207)
Total Current Liabilities	(\$1,976,421)
Sub-Total	5,712,367
Adjustments	
LESS Cash Backed Reserves	(\$2,390,698)
LESS Restricted Cash	\$0
LESS Inventory	(\$702,685)
LESS Prepaid Expenses	\$0
ADD: Employee Leave Provisions	\$0
ADD: Accrued Interest	\$2,392
ADD: Accrued Salaries & Wages	\$64,569
ADD: Accrued Expenses	\$62,318
ADD: Current Loan Liability	\$0
Rounding	-1
Net Current Position	2,748,263

SHIRE OF BOYUP BROOK
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDING 31 MARCH 2022

EXPLANATION OF MATERIAL VARIANCES

REPORTING PROGRAM & EXPLANATION	TIMING / PERMANENT	\$ VARIANCE	% VARIANCE
OPERATING REVENUE			
General Purpose Funding			
General purpose and local road grant allocations higher than budget estimate	PERMANENT	34,442	Within Threshold
Governance			
Variance within \$10,000 Materiality Threshold		Within Threshold	0%
Law Order & Public Safety -			
Mitigation grant lower than anticipated for the reporting period. Increase in animal fines revenue and dog registration fees.	TIMING	(68,446)	49.10%
Health			
Medical surgery revenue lower than anticipated for reporting period.	TIMING	(118,898)	15.20%
Education & Welfare			
Variance within \$10,000 Materiality Threshold		Within Threshold	Within Threshold
Housing			
Increase in community housing maintenance grant.		133,203	225.36%
Community Amenities			
Variance within \$10,000 Materiality Threshold	TIMING	Within Threshold	Within Threshold
Recreation & Culture			
Increase in swimming pool fees. Additional reimbursement for dividing fence contribution		12,930	25.71%
Transport			
Variance within \$10,000 Materiality Threshold		Within Threshold	Within Threshold
Economic Services			
Variance within \$10,000 Materiality Threshold		Within Threshold	Within Threshold
Other Property and Services			
Increase in worker compensation reimbursements. Diesel fuel rebate lower than anticipated for reporting period. Rylington Park Income higher than anticipated for reporting period.	TIMING	365,153	62.74%

SHIRE OF BOYUP BROOK
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDING 31 MARCH 2022

EXPLANATION OF MATERIAL VARIANCES

REPORTING PROGRAM & EXPLANATION	TIMING / PERMANENT	\$ VARIANCE	% VARIANCE
OPERATING EXPENDITURE			
General Purpose Funding			
Administration allocations lower than anticipated for reporting period.	TIMING	19,301	20.75%
Governance			
Variance within \$10,000 Materiality Threshold	TIMING	77,461	23.84%
Law Order & Public Safety -			
Variance within \$10,000 Materiality Threshold		Within Threshold	Within Threshold
Health			
Depreciation expenses not yet raised. Increase in health administration expenses for reporting period. Medical Services employee expenses, superannuation expenses insurance premium expenses and computer expenses lower than anticipated for reporting period. Medical service general operations expenses higher than budget estimate.	PERMANENT/ TIMING	157,228	15.19%
Education & Welfare			
Depreciation expenses not yet raised. Interest on Aged Initiative loan lower than anticipated. Early Learning Centre Employee costs higher than anticipated for reporting period.	PERMANENT/ TIMING	11,457	Within Threshold
Housing			
Depreciation expenses not yet raised. Staff housing expenses lower than anticipated for reporting period. Boyup Brook Citizens Lodge expenses and Community Housing Units expenses lower than anticipated for reporting period.	TIMING	67,537	51.49%
Community Amenities			
Depreciation expenses not yet raised. Boyup Transfer Station employee expenses and Boyup Brook Transfer Station expenses lower than anticipated for reporting period. Cemetery operation expenses higher than anticipated for reporting period.	TIMING	54,740	15.53%
Recreation & Culture			
Depreciation expenses not yet raised. Boyup Brook halls operation expenses higher than anticipated for reporting period. Recreation Complex wages and overheads expenses, Townsire gardens wages and overheads, Reserves and parks wages and overheads expenses higher than anticipated for reporting period. Support for UBAS expenses higher than anticipated for reporting period. Support for others wages and overheads expenses higher than anticipated for reporting period. Swimming pool general operations expenses and swimming pool building expenses lower than anticipated for reporting period. Swimming pool employee costs higher than anticipated for reporting period. Library operational expenses lower than anticipated for reporting period. State library grant expenses higher than anticipated - offset by grant received.	PERMANENT/ TIMING	216,429	25.68%
Transport			
Depreciation expenses not yet raised. Road maintenance and repairs expenses, maintenance grading expenses, Repairs & Maint - bridges expenses, verge pruning expenses, town services tree pruning expenses, emergency services expenses higher than anticipated for reporting period. Town services verge spraying expenses lower than anticipated for reporting period.	TIMING	1,779,394	62.08%
Economic Service			
Depreciation expenses not yet raised. Rural services expenses lower than anticipated for reporting period. Community development officer expenses higher than anticipated for reporting period. Caravan Park/Flaxmill operation expenses lower than anticipated for reporting period. Building control contractor expenses for asset data collection lower than anticipated for reporting period. Saleyards expenses lower than anticipated for reporting period. Standpipe expenses and economic development project expenses lower than anticipated for reporting period.	PERMANENT/ TIMING	159,754	36.03%
Other Property & Services			
Depreciation expenses not yet raised. Supervision expenses, Training and meeting expenses, and Occupational Health & Safety expenses higher than anticipated for reporting period. Fuel & oil expenses lower than anticipated for reporting period. Tubes & Tyres expenses higher than anticipated for reporting period. Employer Indemnity Insurance expenses higher than anticipated for reporting period. Audit expenses, consultant expenses, subscription expenses lower than anticipated for reporting period. Rylington Park operational expenses higher than anticipated for reporting period.	TIMING	160,546	39.55%

SHIRE OF BOYUP BROOK
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDING 31 MARCH 2022

EXPLANATION OF MATERIAL VARIANCES

REPORTING PROGRAM & EXPLANATION	TIMING / PERMANENT	\$ VARIANCE	% VARIANCE
CAPITAL REVENUES			
<u>Non-Operating Grants, Subsidies & Contributions</u>			
<u>Recreation & Culture</u>			
Recreation - Capital Grants & Contributions - Oval Light Grants - Funding lower than anticipated for reporting period.	TIMING	(30,155)	
Grants and Contributions - Swimming Pool - Grant funding lower than anticipated for reporting period.	TIMING	(822)	
Non-Operating Grants - Sandakan Memorial Grant - Grant received earlier than anticipated	TIMING	10,910	
<u>Transport</u>			
Regional Road Group Grants - RRG funding lower than anticipated for reporting period.	TIMING	(556,500)	
Roads to Recovery Grants - Grant funding received lower than anticipated for reporting period.	TIMING	(361,890)	
LRCI Commonwealth Grant - Grant funding received lower than anticipated for reporting period.	TIMING	(175,682)	
Special Bridge funding MRDWA - Bridge funding received lower than anticipated for reporting period.	TIMING	(127,500)	
Non-Operating Grants & Subsidies Airport - Grant funding received lower than anticipated for reporting period.	TIMING	(23,821)	
		<u>(1,265,461)</u>	(73.05%)
<u>Proceeds from Sale of Assets</u>			
Proceeds from Sale of Assets - Trade-in of all vehicles not yet occurred.	TIMING	(35,227)	
Proceeds from Sale of Assets -		0	
		<u>(35,227)</u>	(56.36%)
<u>Transfers from Reserve</u>			
Transfers from Reserve -		0	0.00%

SHIRE OF BOYUP BROOK
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDING 31 MARCH 2022

EXPLANATION OF MATERIAL VARIANCES

REPORTING PROGRAM & EXPLANATION	TIMING / PERMANENT	\$ VARIANCE	% VARIANCE
CAPITAL EXPENDITURE			
<u>Transfers to Reserve</u>			
Transfers to Reserve - Interest on Reserve Accounts higher than anticipated for reporting period.	PERMANENT	(2,381)	173.92%
<u>Land</u>			
<u>Housing</u>			
Land Acquisition - Land acquisition costs higher than anticipated for reporting period	PERMANENT	(49,627)	
Total (Over)/Under Budget		(49,627)	0.00%
<u>Buildings</u>			
<u>Recreation & Culture</u>			
LRCI 2 - Lesser Hall Flooring Replacement - Project not yet commenced	TIMING	15,000	
Swimming Pool Buildings - Lands & Buildings - Project expenses lower than anticipated for reporting period.	TIMING	4,974	
LRCI 2 - Swimming Pool Buildings - Gym Access Upgrade - Project expenses higher than anticipated.	TIMING	(31,870)	
LRCI 2 - Swimming Pool Buildings - Floor Covering Replacement - Project expenses lower than anticipated for reporting period.	TIMING	25,522	
<u>Economic Services</u>			
Tourist Centre - Land & Building		0	
LRCI Building Projects - Flaxmill - Project expenses lower than anticipated for reporting period	TIMING	35,619	
<u>Other Property & Services</u>			
Administration Building - Building Renewals & Upgrades - No Budget allocation	PERMANENT	(5,000)	
NB			
Rylington Park House Capital - project not yet commenced	TIMING	51,691	
Rylington Park Chemical Shed - Project not yet commenced	TIMING	5,381	
		57,582	18.31%
<u>Plant & Equipment</u>			
<u>Recreation & Culture</u>			
Swimming Pool - Plant & Equipment - Acquisition not yet occurred.	TIMING	7,500	
<u>Transport</u>			
DWS - Fleet Vehicles - Acquisition not yet occurred.		48,000	
Light Plant (eg Portable Traffic Lights) - Acquisition expenses lower than anticipated for reporting period.	TIMING	35,000	
Heavy Plant (Graders etc) Purchases - All acquisitions not yet occurred.	TIMING	540,037	
<u>Other Property & Services</u>			
Pool Vehicle - Acquisition not yet occurred.		60,000	
Rylington Park Plant & Equipment - Acquisition not yet occurred.	TIMING	60,000	
Rylington Park Dorm Rooms Air Conditioners - Increase in acquisition costs and installation expenses for air conditioners.	TIMING	(17,856)	
Total (Over)/Under Budget		727,681	78.37%
<u>Road Construction</u>			
Roads to Recovery Road Projects - Project expenditure lower than anticipated for reporting period.	TIMING	448,250	
Regional Road Group - Project expenses lower than anticipated for reporting period.	TIMING	960,476	
Municipal Funded Road Projects -		0	
Municipal Funded Gravel Sheetting Road Projects - Project not yet commenced	TIMING	53,357	
Municipal Funded - Winter Grading - Project expenses higher than anticipated for reporting period.	TIMING	(164,027)	
Total (Over)/Under Budget		1,468,056	59.04%
<u>Footpath Construction</u>			
Footpaths/Bike paths Construction - Project not yet commenced.	TIMING	75,600	
Total (Over)/Under Budget		75,600	100.00%

SHIRE OF BOYUP BROOK
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDING 31 MARCH 2022

EXPLANATION OF MATERIAL VARIANCES

REPORTING PROGRAM & EXPLANATION	TIMING / PERMANENT	\$ VARIANCE	% VARIANCE
<u>Drainage Infrastructure</u>			
Drainage Projects - Drainage project expenses lower than anticipated for reporting period.	TIMING	44,066	
Total (Over)/Under Budget		44,066	98.64%
<u>Airport Infrastructure</u>			
Aerodrome Runway Reconstruction - Project not yet commenced	TIMING	49,575	
Total (Over)/Under Budget		49,575	100.00%
<u>Parks & Ovals Infrastructure</u>			
Sandakan Memorial Capital Improvements - Project expenses lower than anticipated for reporting period.	TIMING	4,926	
Total (Over)/Under Budget		4,926	43.60%
<u>Recreation Infrastructure</u>			
LRCI 2 Swimming Pool Capital Upgrades - Project expenses higher than anticipated for reporting period	TIMING	(12,586)	
LRCI 2 - Swimming Pool Chlorine System Replacement - Project expenses higher than anticipated for reporting period.	TIMING	(30,733)	
Recreation Infrastructure - Capital Renewals - Project not yet commenced.		75,000	
Football Oval Lighting Upgrade - CSRFF - Project expenses lower than anticipated for reporting period.	TIMING	34,468	
Total (Over)/Under Budget		66,149	22.46%
<u>Other Infrastructure</u>			
<u>Economic Services</u>			
LRCI 1 - Flax Mill / Caravan Park Upgrades - Project expenses higher than anticipated for reporting period.	TIMING	(7,033)	
LRCI 1 - Tourism Centre Upgrades		0	
Boyup Brook Viewing Tower Construction - Project not proceeding - funding application unsuccessful.		248,728	
<u>Other Property & Services</u>			
Rylington Park Rain Water Tank - Project expenses lower than anticipated for reporting period.	TIMING	13,439	
Total (Over)/Under Budget		255,134	93.21%

Note: (NB) = No Budget Provision Made

**SHIRE OF BOYUP BROOK
STATEMENT OF FINANCIAL POSITION
FOR THE PERIOD ENDING 31 MARCH 2022**

	Note	2020-21 ACTUAL \$	2021-22 ACTUAL \$	Variance \$
Current assets				
Unrestricted Cash & Cash Equivalents		2,976,194	3,102,933	126,738
Restricted Cash		2,389,329	2,390,698	1,369
Trade and other receivables		621,352	1,392,851	771,499
Inventories		702,685	702,685	0
Other assets		0	0	0
Total current assets		6,693,671	7,688,097	994,427
Non-current assets				
Trade and other receivables		23,574	23,574	0
LG House Unit Trust		73,807	73,807	0
Land		2,302,466	2,522,093	219,627
Buildings		10,077,463	10,334,426	256,962
Furniture & Equipment		54,435	54,435	0
Plant & Equipment		2,730,905	2,904,452	173,546
Infrastructure Assets - Roads		75,298,522	76,316,839	1,018,317
Infrastructure Assets - Bridges		17,641,156	17,641,156	0
Infrastructure Assets - Footpaths		1,147,516	1,147,516	0
Infrastructure Assets - Recreation		1,617,220	1,843,194	225,974
Infrastructure Assets - Drainage		10,349,028	10,349,634	606
Infrastructure Assets - Parks/Ovals		415,130	417,565	2,436
Infrastructure Assets - Other		3,322,929	3,347,896	24,968
Total non-current assets		125,054,149	126,976,586	1,922,437
Total assets		131,747,819	134,664,683	2,916,864
Current liabilities				
Trade and other payables		417,279	811,340	-394,062
Bonds and deposits		41,331	140,523	-99,193
Contract Liabilities		685,660	685,660	0
Interest-bearing loans and borrowings		20,178	0	20,178
Provisions		338,207	338,207	0
Total current liabilities		1,502,654	1,975,730	-473,076
Non-current liabilities				
Interest-bearing loans and borrowings		93,502	93,502	0
Provisions		16,850	16,850	0
Total non-current liabilities		110,352	110,352	0
Total liabilities		1,613,006	2,086,082	-473,076
Net assets		130,134,813	132,578,601	2,443,787
Equity				
Retained surplus		59,469,831	59,468,462	-1,369
Net Result		0	2,443,787	2,443,787
Reserve - asset revaluation		68,275,654	68,275,654	0
Reserve - Cash backed		2,389,329	2,390,698	1,369
Total equity		130,134,813	132,578,601	2,443,787

This statement is to be read in conjunction with the accompanying notes

**SHIRE OF BOYUP BROOK
STATEMENT OF CASH FLOWS
FOR THE PERIOD ENDING 31 MARCH 2022**

	Note	2020-21 ACTUAL \$	2021-22 BUDGET \$	2021-22 ACTUAL \$
Cash Flows from operating activities				
Payments				
Employee Costs		(3,375,493)	(3,458,423)	(2,193,049)
Materials & Contracts		(1,285,877)	(2,336,056)	(1,186,096)
Utilities (gas, electricity, water, etc)		(191,781)	(221,024)	(130,855)
Insurance		(203,291)	(8,525)	(232,682)
Interest Expense		(76,918)	(244,831)	(6,399)
Goods and Services Tax Paid		(81,639)	0	(128,725)
Other Expenses		(201,857)	(345,259)	(274,732)
		(5,416,856)	(6,614,118)	(4,152,537)
Receipts				
Rates		2,946,636	3,142,969	2,914,025
Operating Grants & Subsidies		1,936,757	1,004,774	567,233
Fees and Charges		1,803,022	1,836,814	1,215,725
Interest Earnings		32,364	32,100	24,482
Goods and Services Tax		3,391	359,700	62,610
Other		768,139	801,352	1,065,197
		7,490,309	7,177,709	5,849,272
Net Cash flows from Operating Activities		2,073,454	563,591	1,696,735
Cash flows from investing activities				
Payments				
Purchase of Land		0	(170,000)	(219,627)
Purchase of Buildings		(216,335)	(314,544)	(256,962)
Purchase Plant and Equipment		(183,576)	(928,500)	(200,819)
Purchase Furniture and Equipment		(16,750)	0	0
Purchase Road Infrastructure Assets		(1,680,847)	(2,467,451)	(1,018,317)
Purchase of Bridges Assets		(722,000)	(170,000)	0
Purchase of Footpath Assets		0	(143,850)	0
Purchase Drainage Assets		(85,356)	(49,875)	(606)
Purchase Parks & Ovals Assets		(4,000)	(11,300)	(8,809)
Purchase Recreation Assets		(134,056)	(497,964)	(225,974)
Purchase Infrastructure Other Assets		(96,808)	(696,395)	(18,594)
Receipts				
Proceeds from Sale of Assets		192,727	62,500	27,273
Non-Operating grants used for Development of Assets		2,069,877	2,000,869	468,808
		(877,124)	(3,386,510)	(1,453,630)
Cash flows from financing activities				
Repayment of Debentures		(319,487)	(27,711)	(20,178)
Advances to Community Groups		0	0	0
Revenue from Self Supporting Loans		0	0	0
Proceeds from New Debentures		0	170,000	0
Net cash flows from financing activities		(319,487)	142,289	(20,178)
Net increase/(decrease) in cash held		876,843	(2,680,630)	222,927
Cash at the Beginning of Reporting Period		4,492,791	5,276,581	5,369,634
Cash at the End of Reporting Period		5,369,634	2,595,951	5,592,561

**SHIRE OF BOYUP BROOK
STATEMENT OF CASH FLOWS
FOR THE PERIOD ENDING 31 MARCH 2022**

Notes

	2020-21 ACTUAL \$	2021-22 BUDGET \$	2021-22 ACTUAL \$
RECONCILIATION OF CASH			
Cash at Bank	2,654,711	57,821	3,228,195
Restricted Cash	2,708,973	2,532,180	2,358,216
Cash on Hand	5,950	5,950	6,150
TOTAL CASH	5,369,634	2,595,951	5,592,561
RECONCILIATION OF NET CASH USED IN OPERATING ACTIVITIES TO OPERATING RESULT			
Net Result (As per Comprehensive Income Statement)	1,187,530	(497,188)	2,443,787
Add back Depreciation	3,504,032	3,586,939	0
(Gain)/Loss on Disposal of Assets	(70,178)	-	0
AASB15 Adjustment			
LG House Unit trust	(2,586)		
Self Supporting Loan Principal Reimbursements	0	-	0
Contributions for the Development of Assets	(2,231,363)	(2,000,869)	(468,808)
Changes in Assets and Liabilities			
(Increase)/Decrease in Inventory	(71,503)	0	0
(Increase)/Decrease in Receivables	(331,582)	482,777	(771,499)
Increase/(Decrease) in Accounts Payable	135,294	(362,182)	493,254
Increase/(Decrease) in Contract Liability	27,595	(685,931)	0
Increase/(Decrease) in Prepayments	0	0	0
Increase/(Decrease) in Employee Provisions	(73,784)	40,045	0
Increase/(Decrease) in Accrued Expenses	0	0	0
Rounding	-	0	0
NET CASH FROM/(USED) IN OPERATING ACTIVITIES	2,073,454	563,591	1,696,735

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
Proceeds Sale of Assets									
123001	Proceeds Sale of Assets	(\$62,500)	(\$27,273)	(\$27,273)	\$0	(\$62,500)	\$0	(\$42,227)	\$0
PROCEEDS FROM SALE OF ASSETS		(\$62,500)	(\$27,273)	(\$27,273)	\$0	(\$62,500)	\$0	(\$42,227)	\$0
Written Down Value								\$0	\$0
	Written Down Value - Works Plant	\$62,500	\$0	\$0	\$0	\$0	\$62,500	\$0	\$62,500
Sub Total - WDV ON DISPOSAL OF ASSET		\$62,500	\$0	\$0	\$0	\$0	\$62,500	\$0	\$62,500
Total - GAIN/LOSS ON DISPOSAL OF ASSET		\$0	(\$27,273)	(\$27,273)	\$0	(\$62,500)	\$62,500	(\$42,227)	\$62,500
Total - OPERATING STATEMENT		\$0	(\$27,273)	(\$27,273)	\$0	(\$62,500)	\$62,500	(\$42,227)	\$62,500

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
RATES									
OPERATING EXPENDITURE									
031103	Rates Administration Activity Costs	\$80,791	\$68,247	\$0	\$68,247	\$0	\$107,765	\$0	\$107,765
031101	Collection Costs	\$3,749	\$0	\$0	\$0	\$0	\$5,000	\$0	\$5,000
031100	Valuation Charges	\$3,091	\$962	\$0	\$962	\$0	\$17,160	\$0	\$17,160
031102	Search Costs	\$48	\$0	\$0	\$0	\$0	\$300	\$0	\$300
Sub Total - GENERAL RATES OP EXP		\$87,679	\$69,209	\$0	\$69,209	\$0	\$130,225	\$0	\$130,225
OPERATING INCOME									
031001	Rates · GRV	(\$481,306)	\$0	\$0	\$0	(\$481,306)	\$0	(\$481,306)	\$0
031002	Rates · UV	(\$2,222,749)	\$0	\$0	\$0	(\$2,222,749)	\$0	(\$2,222,749)	\$0
031003	Rates · GRV - Minimum	(\$53,040)	\$0	\$0	\$0	(\$53,040)	\$0	(\$53,091)	\$0
031004	Rates · UV - Minimum	(\$384,869)	\$0	\$0	\$0	(\$384,869)	\$0	(\$383,928)	\$0
031006	Rates · Ex-Gratia Rates	(\$1,255)	\$0	\$0	\$0	(\$1,255)	\$0	(\$1,255)	\$0
031013	Rates Administration Fee	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
031005	Rates · Instalment Interest	(\$3,000)	(\$3,369)	(\$3,369)	\$0	(\$3,000)	\$0	(\$3,000)	\$0
031007	Rates · Non Payment Penalty - LG	(\$16,767)	(\$16,868)	(\$16,868)	\$0	(\$20,700)	\$0	(\$15,500)	\$0
01023	Pensioner Deferred Rate Interest	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
031008	Rates · Rate Enquiries	(\$6,600)	(\$8,830)	(\$8,830)	\$0	(\$10,000)	\$0	(\$10,000)	\$0
031009	Rates - ESL Administration Fee	(\$4,000)	\$0	\$0	\$0	(\$4,000)	\$0	(\$4,000)	\$0
031010	Rates - Reimbursements	\$0	\$0	\$0	\$0	(\$5,000)	\$0	(\$5,000)	\$0
031011	Rates · Penalty Interest - DFES	(\$700)	(\$738)	(\$738)	\$0	(\$700)	\$0	(\$700)	\$0
031012	Rates · Rates Interims	\$0	(\$3,149,305)	(\$3,149,305)	\$0	\$0	\$0	(\$7,653)	\$0
031104	Rates Written Off	\$187	\$0	\$0	\$0	\$250	\$0	\$250	\$0
Sub Total - GENERAL RATES OP INC		(\$3,174,099)	(\$3,179,110)	(\$3,179,110)	\$0	(\$3,186,369)	\$0	(\$3,187,932)	\$0
Total - GENERAL RATES		(\$3,086,419)	(\$3,109,900)	(\$3,179,110)	\$69,209	(\$3,186,369)	\$130,225	(\$3,187,932)	\$130,225

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
OTHER GENERAL PURPOSE FUNDING									
OPERATING EXPENDITURE									
032100	General Purpose Funding - Administration Allocated	\$5,357	\$4,525	\$0	\$4,525	\$0	\$7,145	\$0	\$7,145
Sub Total - OTHER GENERAL PURPOSE FUNDING OP/EXP		\$5,357	\$4,525	\$0	\$4,525	\$0	\$7,145	\$0	\$7,145
OPERATING INCOME									
032001	General Purpose Grants Federal Commission (OP)	(\$257,483)	(\$280,100)	(\$280,100)	\$0	(\$343,310)	\$0	(\$373,466)	\$0
032002	General Purpose Grants Federal - Roads (OP)	(\$247,733)	(\$263,471)	(\$263,471)	\$0	(\$330,310)	\$0	(\$351,295)	\$0
032003	General Purpose Funding - Interest On Investments - Municipal	(\$581)	(\$2,073)	(\$2,073)	\$0	(\$700)	\$0	(\$2,100)	\$0
032004	Interest on Investments - Reserves Account	(\$2,850)	(\$1,369)	(\$1,369)	\$0	(\$5,000)	\$0	(\$2,300)	\$0
032006	General Purpose Funding - Interest on Investments - Medical Fu	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
032007	General Purpose Funding - Interest on Investments - Business C	(\$830)	\$0	\$0	\$0	(\$1,000)	\$0	\$0	\$0
032008	General Purpose Funding - Interest on Investments - Short Term	(\$830)	(\$64)	(\$64)	\$0	(\$1,000)	\$0	(\$100)	\$0
Sub Total - OTHER GENERAL PURPOSE FUNDING OP/INC		(\$510,306)	(\$547,077)	(\$547,077)	\$0	(\$681,320)	\$0	(\$729,261)	\$0
Total - OTHER GENERAL PURPOSE FUNDING		(\$504,949)	(\$542,552)	(\$547,077)	\$4,525	(\$681,320)	\$7,145	(\$729,261)	\$7,145
Total - GENERAL PURPOSE FUNDING		(\$3,591,369)	(\$3,652,453)	(\$3,726,187)	\$73,734	(\$3,867,689)	\$137,370	(\$3,917,193)	\$137,370

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
MEMBERS OF COUNCIL									
OPERATING EXPENDITURE									
041100	Members - Sitting Fees.	\$56,647	\$48,062	\$0	\$48,062	\$0	\$75,560	\$0	\$75,560
041119	Website Expenses	\$2,624	\$0	\$0	\$0	\$0	\$3,500	\$0	\$3,500
041101	Members - Training Costs	\$7,452	\$3,143	\$0	\$3,143	\$0	\$10,800	\$0	\$10,800
041102	Members - Travelling Costs	\$4,692	\$2,697	\$0	\$2,697	\$0	\$6,800	\$0	\$6,800
041103	Members - Telecommunications Reimbursements	\$7,949	\$7,291	\$0	\$7,291	\$0	\$11,520	\$0	\$11,520
041104	Members - Other Expenses	\$4,400	\$2,505	\$0	\$2,505	\$0	\$4,400	\$0	\$4,400
041105	Members - Conferences/Seminars Costs	\$14,741	\$118	\$0	\$118	\$0	\$15,850	\$0	\$5,850
041106	Members - President's Allowance	\$4,934	\$6,853	\$0	\$6,853	\$0	\$10,280	\$0	\$10,280
041107	Members - Deputy President's Allowance	\$1,259	\$1,713	\$0	\$1,713	\$0	\$2,570	\$0	\$2,570
041108	Members - Council Chamber Expenses	\$987	\$1,247	\$0	\$1,247	\$0	\$1,050	\$0	\$1,385
041109	Members - Refreshments & Receptions	\$12,881	\$25,540	\$0	\$25,540	\$0	\$17,181	\$0	\$29,941
041111	Members - Insurance Costs For Members	\$5,904	\$7,310	\$0	\$7,310	\$0	\$5,904	\$0	\$7,310
041112	Members - Subscriptions	\$8,835	\$8,945	\$0	\$8,945	\$0	\$8,835	\$0	\$8,945
041113	Members - Election Expenses	\$4,365	\$5,273	\$0	\$5,273	\$0	\$4,400	\$0	\$2,818
041114	Members - Donations	\$48,200	\$30,057	\$0	\$30,057	\$0	\$48,200	\$0	\$48,200
041118	ICT - Councillors	\$1,320	\$0	\$0	\$0	\$0	\$2,640	\$0	\$2,640
041120	Warren Blackwood Alliance Expenses	\$30,000	\$5,695	\$0	\$5,695	\$0	\$30,000	\$0	\$30,000
041150	Members - Admin Allocation	\$43,074	\$36,386	\$0	\$36,386	\$0	\$57,455	\$0	\$57,455
Sub Total - MEMBERS OF COUNCIL OP/EXP		\$260,264	\$192,836	\$0	\$192,836	\$0	\$316,945	\$0	\$319,974
OPERATING INCOME									
041002	Other Governance - Sundry Reimbursements Income	\$0	(\$250)	(\$250)	\$0	\$0	\$0	(\$250)	\$0
Sub Total - MEMBERS OF COUNCIL OP/INC		\$0	(\$250)	(\$250)	\$0	\$0	\$0	(\$250)	\$0
Total - MEMBERS OF COUNCIL		\$260,264	\$192,586	(\$250)	\$192,836	\$0	\$316,945	(\$250)	\$319,974

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
 And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
GOVERNANCE									
OPERATING EXPENDITURE									
042100	Other Governance - Admin Allocated	\$64,611	\$54,579	\$0	\$54,579	\$0	\$86,183	\$0	\$86,183
Sub Total - GOVERNANCE - GENERAL OP/EXP		\$64,611	\$54,579	\$0	\$54,579	\$0	\$86,183	\$0	\$86,183
OPERATING INCOME									
Sub Total - GOVERNANCE - GENERAL OP/INC		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - GOVERNANCE - GENERAL		\$64,611	\$54,579	\$0	\$54,579	\$0	\$86,183	\$0	\$86,183
Total - GOVERNANCE		\$324,875	\$247,165	(\$250)	\$247,415	\$0	\$403,128	(\$250)	\$406,157

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
LAW, ORDER AND PUBLIC SAFETY									
FIRE PREVENTION									
OPERATING EXPENDITURE									
051109	ESL - Insurances Fire Appliances and Personnel	\$36,256	\$32,395	\$0	\$32,395	\$0	\$36,256	\$0	\$32,395
051112	Fire Prevention And Support	\$16,061	\$22,721	\$0	\$22,721	\$0	\$16,060	\$0	\$29,048
051101	Fire Break Inspection Expenses	\$3,540	\$3,429	\$0	\$3,429	\$0	\$3,540	\$0	\$3,429
051102	Fire Hazard Reductions Expenses	\$4,954	\$21,059	\$0	\$21,059	\$0	\$6,881	\$0	\$21,273
051104	Minor Fire Plant & Equipment Purchases non ESL	\$300	\$0	\$0	\$0	\$0	\$400	\$0	\$400
051105	Fire Plant & Equipment Maintenance - Non ESL	\$375	\$0	\$0	\$0	\$0	\$500	\$0	\$500
051106	ESL - Fire Vehicle Maintenance Costs	\$9,138	\$11,296	\$0	\$11,296	\$0	\$11,010	\$0	\$15,000
051107	ESL - Brigade Utilities, rates and taxes	\$228	\$0	\$0	\$0	\$0	\$275	\$0	\$275
051108	ESL - Other Goods & Services relating to Fires	\$0	\$826	\$0	\$826	\$0	\$2,200	\$0	\$2,200
051111	ESL - Minor Fire Plant/Equip Under \$1500	\$1,750	\$0	\$0	\$0	\$0	\$5,000	\$0	\$5,000
051114	ESL - Land & Building Maintenance	\$639	\$3,017	\$0	\$3,017	\$0	\$770	\$0	\$1,435
051115	ESL - Clothing and Accessories	\$33,200	\$37,389	\$0	\$37,389	\$0	\$40,000	\$0	\$40,000
051116	ESL - Plant and Equipment Maintenance	\$1,245	\$26,965	\$0	\$26,965	\$0	\$1,500	\$0	\$28,685
051117	BFRC - Bushfire Risk Planning	\$992	\$5,268	\$0	\$5,268	\$0	\$1,458	\$0	\$2,582
051118	DFES Fire Defence Grant Expenses	\$9,329	\$0	\$0	\$0	\$0	\$13,520	\$0	\$13,520
051120	Bush Fire - Mitigation Activity Funded	\$46,871	\$15,617	\$0	\$15,617	\$0	\$66,411	\$0	\$66,411
051150	Admin Allocation - Fire Control	\$43,074	\$36,386	\$0	\$36,386	\$0	\$57,455	\$0	\$57,455
051190	Depreciation - Fire Control	\$670	\$0	\$0	\$0	\$0	\$670	\$0	\$670
Sub Total - FIRE PREVENTION OP/EXP		\$208,623	\$218,503	\$0	\$218,503	\$0	\$263,906	\$0	\$320,278
OPERATING INCOME									
051001	Fire Infringements/Fines Income	(\$500)	(\$550)	(\$550)	\$0	(\$500)	\$0	(\$550)	\$0
051002	Sale Of Fire Maps Income	(\$100)	(\$75)	(\$75)	\$0	(\$100)	\$0	(\$100)	\$0
051004	ESL - Funding Operating Grant Income	(\$133,782)	(\$59,190)	(\$59,190)	\$0	(\$151,789)	\$0	(\$151,789)	\$0
Sub Total - FIRE PREVENTION OP/INC		(\$134,382)	(\$60,724)	(\$60,724)	\$0	(\$152,389)	\$0	(\$152,439)	\$0
Total - FIRE PREVENTION		\$74,241	\$157,779	(\$60,724)	\$218,503	(\$152,389)	\$263,906	(\$152,439)	\$320,278

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
ANIMAL CONTROL									
OPERATING EXPENDITURE									
052100	Ranger Services Operation Costs	\$1,310	\$10,337	\$0	\$10,337	\$0	\$2,100	\$0	\$10,820
052005	Trap Hire Refunds	\$50	\$0	\$0	\$0	\$0	\$50	\$0	\$50
052101	Ranger Vehicle Operating Expenses	\$2,587	\$0	\$0	\$0	\$0	\$3,450	\$0	\$3,450
052102	Dog License Discs Costs	\$250	\$271	\$0	\$271	\$0	\$250	\$0	\$300
052103	Other Control Expenses	\$1,417	\$14,869	\$0	\$14,869	\$0	\$1,748	\$0	\$12,357
052104	Animal Impounding Costs	\$5,000	\$2,640	\$0	\$2,640	\$0	\$5,000	\$0	\$5,000
052109	Cat License Tags Expense	\$100	\$90	\$0	\$90	\$0	\$100	\$0	\$100
052110	Ranger Services Salary Super and Employee Costs	\$38,947	\$32,108	\$0	\$32,108	\$0	\$52,271	\$0	\$52,271
052150	Admin Allocation - Animal Control	\$16,186	\$13,668	\$0	\$13,668	\$0	\$21,582	\$0	\$21,582
052190	Depreciation	\$300	\$0	\$0	\$0	\$0	\$400	\$0	\$400
Sub Total - ANIMAL CONTROL OP/EXP		\$66,147	\$73,982	\$0	\$73,982	\$0	\$86,951	\$0	\$106,330
OPERATING INCOME									
052001	Animal Fines & Penalties Income	\$0	(\$2,143)	(\$2,143)	\$0	\$0	\$0	(\$1,950)	\$0
052002	Animal Impounding Fees Income	(\$300)	(\$1,514)	(\$1,514)	\$0	(\$300)	\$0	(\$665)	\$0
052003	Dog Registrations Charges	(\$4,706)	(\$6,562)	(\$6,562)	\$0	(\$6,000)	\$0	(\$6,109)	\$0
Sub Total - ANIMAL CONTROL OP/INC		(\$5,006)	(\$10,218)	(\$10,218)	\$0	(\$6,300)	\$0	(\$8,724)	\$0
Total - ANIMAL CONTROL		\$61,141	\$63,764	(\$10,218)	\$73,982	(\$6,300)	\$86,951	(\$8,724)	\$106,330

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
OTHER LAW ORDER & PUBLIC SAFETY									
OPERATING EXPENDITURE									
053100	Local Emergency Management Committee Expenses	\$300	\$0	\$0	\$0	\$0	\$300	\$0	\$300
053150	Administration Allocated - Emergency Mgt	\$16,180	\$13,668	\$0	\$13,668	\$0	\$21,582	\$0	\$21,582
053190	Depreciation	\$20,501	\$0	\$0	\$0	\$0	\$27,345	\$0	\$27,345
Sub Total - OTHER LAW ORDER & PUBLIC SAFETY OP/EXP		\$36,981	\$13,668	\$0	\$13,668	\$0	\$49,227	\$0	\$49,227
OPERATING INCOME									
053002	Non-Operating Grants CCTV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - OTHER LAW ORDER & PUBLIC SAFETY OP /INC		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - OTHER LAW ORDER PUBLIC SAFETY		\$36,981	\$13,668	\$0	\$13,668	\$0	\$49,227	\$0	\$49,227
Total - LAW ORDER & PUBLIC SAFETY		\$172,363	\$235,211	(\$70,942)	\$306,153	(\$158,689)	\$400,084	(\$161,163)	\$475,835

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
HEALTH FAMILY STOP CENTRE										
OPERATING EXPENDITURE										
071100	B0101	Family Stop Centre - Operation	\$10,676	\$6,762	\$0	\$6,762	\$0	\$11,766	\$0	\$11,374
071150		Admin Allocated - Family Stop Centre	\$10,823	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
071190		Depreciation - Family Stop Centre	\$2,774	\$0	\$0	\$0	\$0	\$3,700	\$0	\$3,700
Sub Total - HEALTH FAMILY STOP OP/EXP			\$24,273	\$15,905	\$0	\$15,905	\$0	\$29,903	\$0	\$29,511
OPERATING INCOME										
Sub Total - HEALTH FAMILY STOP OP/INC			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - HEALTH FAMILY STOP			\$24,273	\$15,905	\$0	\$15,905	\$0	\$29,903	\$0	\$29,511
HEALTH ADMINISTRATION & INSPECTION										
OPERATING EXPENDITURE										
072100		Health Administration Services Expenses	\$14,100	\$28,358	\$0	\$28,358	\$0	\$32,250	\$0	\$58,657
072101		Other Health Administration Expenses	\$109	\$459	\$0	\$459	\$0	\$150	\$0	\$460
072102		Provision for Leave Accruals	\$0	\$0	\$0	\$0	\$0	\$0		
072103		Health Administration Superannuation	\$1,452	\$0	\$0	\$0	\$0	\$3,630	\$0	\$0
072150		Admin Allocation - Other Health	\$10,827	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
Sub Total - HEALTH ADMIN AND INSPECTION OP/EXP			\$26,488	\$37,959	\$0	\$37,959	\$0	\$50,467	\$0	\$73,554
OPERATING INCOME										
072001		Food Stall Permit Charges	\$0	(\$198)	(\$198)	\$0	\$0	\$0	(\$198)	\$0
072002		Temporary Camping Site Permit Charges	(\$100)	(\$300)	(\$300)	\$0	(\$100)	\$0	(\$300)	\$0
072003		Food Business Registration Fee	(\$615)	(\$782)	(\$782)	\$0	(\$883)	\$0	(\$883)	\$0
072004		Annual Inspections	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
072005		Lodging House Registration Fees	(\$306)	\$0	\$0	\$0	(\$306)	\$0	(\$306)	\$0
Sub Total - HEALTH ADMIN AND INSPECTION OP/INC			(\$1,021)	(\$1,279)	(\$1,279)	\$0	(\$1,289)	\$0	(\$1,687)	\$0
Total - HEALTH ADMIN AND INSPECTION			\$25,467	\$36,680	(\$1,279)	\$37,959	(\$1,289)	\$50,467	(\$1,687)	\$73,554

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
OTHER HEALTH - MEDICAL SERVICES										
OPERATING EXPENDITURE										
074100	B0105	Housing General Practitioner - Medical Service	\$10,876	\$9,948	\$0	\$9,948	\$0	\$13,963	\$0	\$18,580
074102		Boyup Brook Medical Services Building Costs	\$23,091	\$18,179	\$0	\$18,179	\$0	\$26,705	\$0	\$25,285
074101		Medical Services General Operations	\$5,169	\$22,470	\$0	\$22,470	\$0	\$9,810	\$0	\$27,410
074103		Medical Service Employee Costs	\$680,809	\$585,401	\$0	\$585,401	\$0	\$1,015,818	\$0	\$1,009,979
074105		Postage, Printing & Stationery	\$3,092	\$3,483	\$0	\$3,483	\$0	\$4,600	\$0	\$5,100
074106		Medical Ctr - Telephones	\$5,173	\$4,615	\$0	\$4,615	\$0	\$6,900	\$0	\$7,160
074107		Medical Ctr - Subscriptions	\$4,054	\$2,626	\$0	\$2,626	\$0	\$5,971	\$0	\$5,971
074108		Medical Ctr - Insurances	\$16,508	\$6,948	\$0	\$6,948	\$0	\$16,508	\$0	\$16,466
074109		Medical Bank Fees	\$712	\$354	\$0	\$354	\$0	\$950	\$0	\$950
074110		Medical Ctr - Computer Expenses	\$24,580	\$15,804	\$0	\$15,804	\$0	\$29,936	\$0	\$30,366
074111		Medical Ctr - Medical Supplies & Equipt	\$17,318	\$10,829	\$0	\$10,829	\$0	\$23,100	\$0	\$23,395
074112		Medical Ctr - Locum Doctor	\$16,038	\$17,345	\$0	\$17,345	\$0	\$48,600	\$0	\$48,600
074113		Medical Ctr - Superannuation	\$79,802	\$58,948	\$0	\$58,948	\$0	\$117,270	\$0	\$78,000
074114		Medical Ctr - Training	\$2,500	\$1,366	\$0	\$1,366	\$0	\$2,500	\$0	\$2,500
074115		Medical Ctr - Sundry Expenses	\$9,001	\$2,576	\$0	\$2,576	\$0	\$12,100	\$0	\$12,100
074116		Medical Service Provision for Leave Accruals	\$0	\$0	\$0	\$0	\$0	\$31,245	\$0	\$31,245
074117		Medical - Fringe Benefit Tax	\$1,890	\$0	\$0	\$0	\$0	\$2,520	\$0	\$2,520
074118		Medical Employee (Packaging) Costs	\$0	\$0	\$0	\$0	\$0	\$1,200	\$0	\$1,200
074150		Admin Allocated - Boyup Brook Medical Services	\$48,431	\$40,911	\$0	\$40,911	\$0	\$64,601	\$0	\$64,601
074191		Depreciation - Medical Centre	\$6,372	\$0	\$0	\$0	\$0	\$8,500	\$0	\$8,500
074190		Depreciation - Housing GP - 5 Rogers Ave	\$5,098	\$0	\$0	\$0	\$0	\$6,800	\$0	\$6,800
Sub Total - PREVENTIVE SRVS - OP/EXP			\$960,515	\$801,803	\$0	\$801,803	\$0	\$1,449,597	\$0	\$1,426,728
OPERATING INCOME										
074001		Surgery Turnover	(\$776,050)	(\$646,668)	(\$646,668)	\$0	(\$1,100,000)	\$0	(\$1,184,727)	\$0
074002		Surgery Rental Income	(\$5,316)	(\$1,636)	(\$1,636)	\$0	(\$7,091)	\$0	(\$1,636)	\$0
074003		Medical - Reimbursement	\$0	(\$13,906)	(\$13,906)	\$0	\$0	\$0	(\$13,906)	\$0
Sub Total - PREVENTIVE SRVS - OP/INC			(\$781,366)	(\$662,211)	(\$662,211)	\$0	(\$1,107,091)	\$0	(\$1,200,269)	\$0
Total - PREVENTIVE SERVICES			\$179,149	\$139,593	(\$662,211)	\$801,803	(\$1,107,091)	\$1,449,597	(\$1,200,269)	\$1,426,728

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		YTD COMPARATIVES PERIOD 09 31 MARCH 2022		CURRENT YEAR YTD ACTUALS 31 MARCH 2022		ADOPTED BUDGET 2021-22		AMENDED BUDGET 30 JUNE 2022	
			Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
PREVENTIVE SERVICE - OTHER										
OPERATING EXPENDITURE										
073100	Analytical Expenses		\$475	\$483	\$0	\$483	\$0	\$475	\$0	\$483
Sub Total - PREVENTIVE SRVS - OTHER OP/EXP			\$475	\$483	\$0	\$483	\$0	\$475	\$0	\$483
Total - PREVENTIVE SERVICES - OTHER			\$475	\$483	\$0	\$483	\$0	\$475	\$0	\$483
OTHER HEALTH										
OPERATING EXPENDITURE										
075100	Ambulance Centre Operation		\$12,648	\$12,702	\$0	\$12,702	\$0	\$24,648	\$0	\$24,650
075150	Admin Allocated - Other Health		\$10,823	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
Sub Total - OTHER HEALTH OP/EXP			\$23,471	\$21,844	\$0	\$21,844	\$0	\$39,085	\$0	\$39,087
OPERATING INCOME										
Sub Total - OTHER HEALTH OP/INC			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - OTHER HEALTH			\$23,471	\$21,844	\$0	\$21,844	\$0	\$39,085	\$0	\$39,087
Total - HEALTH			\$252,835	\$214,505	(\$663,490)	\$877,994	(\$1,108,380)	\$1,569,527	(\$1,201,956)	\$1,569,363

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
OTHER EDUCATION									
OPERATING EXPENDITURE									
081100	Community Resource Centre	\$4,395	\$2,715	\$0	\$2,715	\$0	\$4,745	\$0	\$3,873
081101	Rylington Park Farm Complex	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
081102	Donations - Other Education	\$250	\$150	\$0	\$150	\$0	\$250	\$0	\$250
081103	Early Learning Centre - Employee Costs	\$149,076	\$166,424	\$0	\$166,424	\$0	\$201,036	\$0	\$204,364
081104	Early Learning Centre - Operating Costs	\$14,207	\$12,296	\$0	\$12,296	\$0	\$18,000	\$0	\$20,500
081150	Admin Allocation - Other Education	\$10,827	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
081190	Depreciation - Community Resource Centre	\$3,765	\$0	\$0	\$0	\$0	\$5,020	\$0	\$5,020
081191	Depreciation - Rylington Park Farm Complex	\$12,663	\$0	\$0	\$0	\$0	\$16,885	\$0	\$0
Sub Total - OTHER EDUCATION OP/EXP		\$195,183	\$190,728	\$0	\$190,728	\$0	\$260,373	\$0	\$248,444
OPERATING INCOME									
081003	Early Learning Centre - Fees & Charges	(\$137,528)	(\$133,149)	(\$133,149)	\$0	(\$165,000)	\$0	(\$185,000)	\$0
081004	Early Learning Centre -Operating Income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - OTHER EDUCATION OP/INC		(\$137,528)	(\$133,149)	(\$133,149)	\$0	(\$165,000)	\$0	(\$185,000)	\$0
Total - OTHER EDUCATION		\$57,656	\$57,578	(\$133,149)	\$190,728	(\$165,000)	\$260,373	(\$185,000)	\$248,444

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
AGED & DISABLED									
OPERATING EXPENDITURE									
082100	Support for Seniors Christmas Lunch	\$1,390	\$1,143	\$0	\$1,143	\$0	\$1,390	\$0	\$1,390
082104	Aged Needs Initiative Loan Interest	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
082150	Admin Allocated - Aged & Disabled	\$10,823	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
Sub Total - AGED & DISABLED OP/EXP		\$12,213	\$10,285	\$0	\$10,285	\$0	\$15,827	\$0	\$15,827
OPERATING INCOME									
Sub Total - AGED & DISABLED OP/INC		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - AGED & DISABLED		\$12,213	\$10,285	\$0	\$10,285	\$0	\$15,827	\$0	\$15,827
OTHER WELFARE									
OPERATING EXPENDITURE									
083100	Other Welfare Expenses	\$0	\$0	\$0	\$0	\$0	\$500	\$0	\$500
083104	Depreciation	\$37	\$0	\$0	\$0	\$0	\$50	\$0	\$50
083150	Admin Allocated - Other Welfare	\$32,372	\$27,336	\$0	\$27,336	\$0	\$43,164	\$0	\$43,164
Sub Total - OTHER WELFARE OP/EXP		\$32,409	\$27,336	\$0	\$27,336	\$0	\$43,714	\$0	\$43,714
OPERATING INCOME									
Sub Total - OTHER WELFARE OP/INC		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - OTHER WELFARE		\$32,409	\$27,336	\$0	\$27,336	\$0	\$43,714	\$0	\$43,714
Total - EDUCATION & WELFARE		\$102,279	\$95,199	(\$133,149)	\$228,349	(\$165,000)	\$319,914	(\$185,000)	\$307,985

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
STAFF HOUSING									
OPERATING EXPENDITURE									
091100	Staff Housing	\$7,232	\$1,130	\$0	\$1,130	\$0	\$7,479	\$0	\$5,239
091130	Interest Paid Loan 115 - Staff House	\$2,670	\$2,267	\$0	\$2,267	\$0	\$2,268	\$0	\$2,268
091190	Depreciation - Staff Housing	\$4,300	\$0	\$0	\$0	\$0	\$5,735	\$0	\$5,735
091150	Staff Housing - Less Amt Allocated to Admin.	\$10,823	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
Sub Total - STAFF HOUSING OP/EXP		\$25,025	\$12,540	\$0	\$12,540	\$0	\$29,919	\$0	\$27,679
OPERATING INCOME									
Sub Total - STAFF HOUSING OP/INC		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - STAFF HOUSING		\$25,025	\$12,540	\$0	\$12,540	\$0	\$29,919	\$0	\$27,679

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
HOUSING OTHER									
OPERATING EXPENDITURE									
092101	Boyup Brook Citizens Lodge	\$19,296	\$11,473	\$0	\$11,473	\$0	\$19,596	\$0	\$12,754
092102	Community Housing - Units	\$22,068	\$10,497	\$0	\$10,497	\$0	\$23,552	\$0	\$14,777
092103	Other	\$5,509	\$1,724	\$0	\$1,724	\$0	\$6,498	\$0	\$6,518
092104	6 Nix - Operating & Mtce Expense	\$143	\$0	\$0	\$0	\$0	\$145	\$0	\$145
092105	House - 1 Rogers Ave	\$11,951	\$7,792	\$0	\$7,792	\$0	\$13,418	\$0	\$11,411
092107	7 Knapp Street - Operating & Mtce Expense	\$4,513	\$2,481	\$0	\$2,481	\$0	\$5,145	\$0	\$5,232
092109	Community Housing Maintenance - Grant Funded	\$0	\$7,887	\$0	\$7,887			\$0	\$7,887
092150	Admin Allocation - Other Housing	\$10,933	\$9,235	\$0	\$9,235	\$0	\$14,583	\$0	\$14,583
092191	Depreciation - Other Housing	\$4,176	\$0	\$0	\$0	\$0	\$5,570	\$0	\$5,570
092192	Depreciation - House - 1 Rogers Ave	\$3,272	\$0	\$0	\$0	\$0	\$4,365	\$0	\$4,365
092190	Depreciation - Boyup Brook Citizens Lodge	\$24,279	\$0	\$0	\$0	\$0	\$32,385	\$0	\$32,385
Sub Total - HOUSING OTHER OP/EXP		\$106,141	\$51,089	\$0	\$51,089	\$0	\$125,256	\$0	\$115,627
HOUSING OPERATING INCOME									
092001	Rent 24A Proctor St	(\$6,699)	(\$6,605)	(\$6,605)	\$0	(\$8,932)	\$0	(\$8,932)	\$0
092002	Rent 24B Proctor St	(\$6,000)	(\$6,029)	(\$6,029)	\$0	(\$8,000)	\$0	(\$8,000)	\$0
092003	Rent 16A Forrest St	(\$7,425)	(\$6,605)	(\$6,605)	\$0	(\$9,900)	\$0	(\$9,900)	\$0
092004	Rent 16B Forrest St	(\$7,050)	(\$6,605)	(\$6,605)	\$0	(\$9,400)	\$0	(\$9,400)	\$0
092005	Rent 1 Rogers St	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
092007	Housing Reimbursements	(\$813)	(\$156)	(\$156)	\$0	(\$1,000)	\$0	(\$250)	\$0
092009	Other Housing: 7 Knapp St	(\$23,459)	(\$22,971)	(\$22,971)	\$0	(\$31,280)	\$0	(\$31,280)	\$0
092011	Community Housing Maintenance Grant	(\$7,662)	(\$143,340)	(\$143,340)	\$0	(\$7,662)	\$0	(\$7,662)	\$0
Sub Total - HOUSING OTHER OP/INC		(\$59,107)	(\$192,310)	(\$192,310)	\$0	(\$76,174)	\$0	(\$75,424)	\$0
Total - HOUSING OTHER		\$47,034	(\$141,221)	(\$192,310)	\$51,089	(\$76,174)	\$125,256	(\$75,424)	\$115,627
Total - HOUSING		\$72,059	(\$128,681)	(\$192,310)	\$63,629	(\$76,174)	\$155,175	(\$75,424)	\$143,306

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
SANITATION - HOUSEHOLD REFUSE										
OPERATING EXPENDITURE										
101100		Refuse Collection Boyup Brook Townsite Expense	\$34,385	\$31,444	\$0	\$31,444	\$0	\$45,849	\$0	\$47,561
101101		Recycling Collection Boyup Brook Town Site	\$21,404	\$18,955	\$0	\$18,955	\$0	\$28,540	\$0	\$28,556
101106		Transfer Station Employee Costs	\$71,941	\$19,721	\$0	\$19,721	\$0	\$93,346	\$0	\$21,092
101102	B0400	Boyup Brook Transfer Station Costs	\$43,922	\$30,544	\$0	\$30,544	\$0	\$58,935	\$0	\$49,703
101103		Land Fill Disposal Site	\$32,570	\$34,419	\$0	\$34,419	\$0	\$44,365	\$0	\$62,365
101104		Townsite Street Bins Collection	\$7,554	\$9,437	\$0	\$9,437	\$0	\$10,260	\$0	\$13,415
101107		Drum Muster Expenses	\$1,600	\$0	\$0	\$0	\$0	\$1,600	\$0	\$1,600
101108		BB Transfer Station Superannuation	\$1,212	\$1,381	\$0	\$1,381	\$0	\$1,700	\$0	\$1,790
101119		Waste Bin Maintenance and Delivery	\$1,708	\$3,053	\$0	\$3,053	\$0	\$2,340	\$0	\$4,585
101150		Admin Allocated - Waste Management	\$21,537	\$18,193	\$0	\$18,193	\$0	\$28,728	\$0	\$28,728
101190		Depreciation - Waste Management	\$16,546	\$0	\$0	\$0	\$0	\$22,070	\$0	\$22,070
Sub Total - SANITATION HOUSEHOLD REFUSE OP/EXI			\$254,380	\$167,147	\$0	\$167,147	\$0	\$337,733	\$0	\$281,465
SANITATION OPERATING INCOME										
101001		Refuse Collection Charges - Rates	(\$188,700)	(\$196,799)	(\$196,799)	\$0	(\$188,700)	\$0	(\$196,252)	\$0
101002		Waste Disposal Charges	(\$6,000)	(\$5,943)	(\$5,943)	\$0	(\$6,000)	\$0	(\$6,000)	\$0
101003		Recycling Scheme Income	(\$900)	(\$5,229)	(\$5,229)	\$0	(\$1,800)	\$0	(\$5,229)	\$0
101004		Scrap Metal Income	(\$1,584)	\$0	\$0	\$0	(\$2,400)	\$0	\$0	\$0
Sub Total - SANITATION H/HOLD REFUSE OP/INC			(\$197,184)	(\$207,970)	(\$207,970)	\$0	(\$198,900)	\$0	(\$207,481)	\$0
Total - SANITATION HOUSEHOLD REFUSE			\$57,196	(\$40,824)	(\$207,970)	\$167,147	(\$198,900)	\$337,733	(\$207,481)	\$281,465

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
EFFLUENT DRAINAGE SYSTEM									
OPERATING EXPENDITURE									
103100	Septic Tank Inspection Expenses	\$200	\$0	\$0	\$0	\$0	\$200	\$0	\$200
103101	Liquid Waste Disposal Site (Stanton Road)	\$2,570	\$8,085	\$0	\$8,085	\$0	\$2,570	\$0	\$9,098
Sub Total - SEWERAGE OP/EXP		\$2,770	\$8,085	\$0	\$8,085	\$0	\$2,770	\$0	\$9,298
OPERATING INCOME									
103002	Septic Licence Fees	(\$3,440)	(\$2,832)	(\$2,832)	\$0	(\$4,000)	\$0	(\$3,500)	\$0
Sub Total - SEWERAGE OP/INC		(\$3,440)	(\$2,832)	(\$2,832)	\$0	(\$4,000)	\$0	(\$3,500)	\$0
Total - SEWERAGE		(\$670)	\$5,253	(\$2,832)	\$8,085	(\$4,000)	\$2,770	(\$3,500)	\$9,298
TOWN PLANNING & REGIONAL DEVELOPMENT									
OPERATING EXPENDITURE									
105100	Town Planning Admin & Control	\$19,605	\$56,443	\$0	\$56,443	\$0	\$28,752	\$0	\$67,050
105101	Admin Allocation - Town Planning	\$21,545	\$18,193	\$0	\$18,193	\$0	\$28,728	\$0	\$28,728
Sub Total - TOWN PLAN & REG DEV OP/EXP		\$41,150	\$74,636	\$0	\$74,636	\$0	\$57,480	\$0	\$95,778
OPERATING INCOME									
105001	Planning Application Fees	(\$3,512)	(\$2,877)	(\$2,877)	\$0	(\$5,000)	\$0	(\$1,030)	\$0
Sub Total - TOWN PLAN & REG DEV OP/INC		(\$3,512)	(\$2,877)	(\$2,877)	\$0	(\$5,000)	\$0	(\$1,030)	\$0
Total - TOWN PLANNING & REGIONAL DEVELOPMENT		\$37,639	\$71,759	(\$2,877)	\$74,636	(\$5,000)	\$57,480	(\$1,030)	\$95,778

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
OTHER COMMUNITY AMENITIES										
OPERATING EXPENDITURE										
106101		Cemetery - Operation	\$21,784	\$25,622	\$0	\$25,622	\$0	\$0		
106101	B0420	Cemetery - Operation		\$0	\$0	\$0	\$0	\$29,037	\$0	\$30,437
106101	B0421	Niche Wall Plaques Operations	\$50	\$0	\$0	\$0	\$0	\$50	\$0	\$50
106101	G314	Cemetery Grounds	\$4,503	\$0	\$0	\$0	\$0	\$5,928	\$0	\$6,920
106102		Public Toilets - Operation		\$12,097	\$0	\$12,097	\$0	\$0		
106102	B0450	Toilets - Lions Park Costs	\$2,729	\$0	\$0	\$0	\$0	\$3,675	\$0	\$3,675
106102	B0451	Toilets - Tourist Centre Costs	\$2,858	\$0	\$0	\$0	\$0	\$3,635	\$0	\$6,943
106102	B0452	Toilets - Town Hall (External) Costs	\$6,769	\$0	\$0	\$0	\$0	\$8,696	\$0	\$9,570
106103		Street Furniture	\$430	\$0	\$0	\$0	\$0	\$430	\$0	\$430
106150		Admin Allocation - Other Community Amenities	\$10,827	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
106151		Admin Allocation - Cemetery	\$1,203	\$1,016	\$0	\$1,016	\$0	\$1,604	\$0	\$1,604
106191		Depreciation - Public Toilets	\$757	\$0	\$0	\$0	\$0	\$1,010	\$0	\$1,010
106192		Depreciation - Other Community Service's	\$2,276	\$0	\$0	\$0	\$0	\$3,035	\$0	\$3,035
Sub Total - OTHER COMMUNITY AMENITIES OP/EXP			\$54,186	\$47,878	\$0	\$47,878	\$0	\$71,537	\$0	\$78,111
OPERATING INCOME										
106001		Cemetery Burial Fees	(\$13,000)	(\$5,105)	(\$5,105)	\$0	(\$13,000)	\$0	(\$4,865)	\$0
106002		License/Other Fees BB Cemetery	(\$1,000)	(\$2,991)	(\$2,991)	\$0	(\$1,000)	\$0	(\$2,672)	\$0
106004		Niche Wall Fees	(\$1,700)	(\$1,940)	(\$1,940)	\$0	(\$1,700)	\$0	(\$1,700)	\$0
Sub Total - OTHER COMMUNITY AMENITIES OP/INC			(\$15,700)	(\$10,037)	(\$10,037)	\$0	(\$15,700)	\$0	(\$9,237)	\$0
Total - OTHER COMMUNITY AMENITIES			\$38,486	\$37,841	(\$10,037)	\$47,878	(\$15,700)	\$71,537	(\$9,237)	\$78,111
Total - COMMUNITY AMENITIES			\$132,650	\$74,029	(\$223,716)	\$297,745	(\$223,600)	\$469,520	(\$221,248)	\$464,652

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
PUBLIC HALL & CIVIC CENTRES									
OPERATING EXPENDITURE									
111100	Boyup Brook Hall - Operation	\$27,310	\$35,032	\$0	\$35,032	\$0	\$33,700	\$0	\$40,869
111102	Halls - Other Public Halls	\$10,363	\$4,814	\$0	\$4,814	\$0	\$12,266	\$0	\$8,724
111150	Admin Allocation - Public Halls	\$21,545	\$18,193	\$0	\$18,193	\$0	\$28,728	\$0	\$28,728
111190	Depreciation - Public Halls	\$38,536	\$0	\$0	\$0	\$0	\$51,384	\$0	\$51,384
Sub Total - PUBLIC HALLS & CIVIC CENTRES OP/EXP		\$97,755	\$58,039	\$0	\$58,039	\$0	\$126,077	\$0	\$129,705
OPERATING INCOME									
111001	Hall Hire Fees	\$0	(\$427)	(\$427)	\$0	\$0	\$0	(\$427)	\$0
Sub Total - PUBLIC HALLS & CIVIC CENTRES OP/INC		\$0	(\$427)	(\$427)	\$0	\$0	\$0	(\$427)	\$0
Total - PUBLIC HALL & CIVIC CENTRES		\$97,755	\$57,612	(\$427)	\$58,039	\$0	\$126,077	(\$427)	\$129,705

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
OTHER RECREATION & SPORT									
OPERATING EXPENDITURE									
113100	Recreation Complex	\$53,593	\$72,208	\$0	\$72,208	\$0	\$63,321	\$0	\$77,180
113109	Walk Trails	\$1,130	\$3,392	\$0	\$3,392	\$0	\$1,507	\$0	\$2,875
113110	Townsite Gardens	\$36,558	\$51,580	\$0	\$51,580	\$0	\$46,022	\$0	\$61,895
113112	Reserves and Parks Operations	\$22,297	\$46,865	\$0	\$46,865	\$0	\$32,583	\$0	\$63,096
113119	Other Recreation Facilities	\$14,627	\$10,188	\$0	\$10,188	\$0	\$18,636	\$0	\$23,383
113120	War Memorial	\$2,513	\$3,921	\$0	\$3,921	\$0	\$3,302	\$0	\$4,702
113150	Admin Allocation - Other Recreation	\$36,528	\$30,845	\$0	\$30,845	\$0	\$48,706	\$0	\$48,706
113124	Support for UBAS	\$2,181	\$52,385	\$0	\$52,385	\$0	\$42,181	\$0	\$54,560
113122	Support for ANZAC Day	\$4,829	\$120	\$0	\$120	\$0	\$9,657	\$0	\$9,657
113125	Support for Others	\$5,046	\$20,144	\$0	\$20,144	\$0	\$6,911	\$0	\$19,910
113190	Depreciation - Other Recreation	\$165,308	\$0	\$0	\$0	\$0	\$220,420	\$0	\$220,420
113191	Depreciation - Parks & Gardens	\$37,521	\$0	\$0	\$0	\$0	\$50,030	\$0	\$50,030
113192	Depreciation: Plant & Equipment	\$12,367	\$0	\$0	\$0	\$0	\$16,490	\$0	\$16,490
Sub Total - OTHER RECREATION & SPORT OP/EXP		\$394,498	\$296,975	\$0	\$296,975	\$0	\$559,765	\$0	\$652,904
OPERATING INCOME									
113003	Rec Ground Use Hire Fees	(\$3,400)	(\$3,469)	(\$3,469)	\$0	(\$3,400)	\$0	(\$3,469)	\$0
113002	Reimbursements - Other Rec	(\$125)	\$0	\$0	\$0	(\$500)	\$0	(\$500)	\$0
113022	Recreation - Capital Grants & Contributions	(\$80,309)	(\$50,154)	(\$50,154)	\$0	(\$180,309)	\$0	(\$120,309)	\$0
Sub Total - OTHER RECREATION & SPORT OP/INC		(\$83,834)	(\$53,623)	(\$53,623)	\$0	(\$184,209)	\$0	(\$124,278)	\$0
Total - OTHER RECREATION & SPORT		\$310,664	\$243,352	(\$53,623)	\$296,975	(\$184,209)	\$559,765	(\$124,278)	\$652,904

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
SWIMMING POOL									
OPERATING EXPENDITURE									
112100	Swimming Pool & Gymnasium General Operations	\$68,761	\$32,258	\$0	\$32,258	\$0	\$77,810	\$0	\$83,171
112101	Swimming Pool Building Costs	\$49,684	\$40,640	\$0	\$40,640	\$0	\$57,929	\$0	\$66,971
112102	Swimming Pool Employee Costs	\$65,509	\$85,625	\$0	\$85,625	\$0	\$75,058	\$0	\$85,109
112103	Interest on Loan 114 - upgrade pool bowl	\$4,866	\$4,132	\$0	\$4,132	\$0	\$4,132	\$0	\$4,132
112104	Swimming Pool Employee Superannuation	\$7,376	\$5,381	\$0	\$5,381	\$0	\$8,089	\$0	\$8,089
112106	Pool Staff - Fringe Benefits Tax	\$1,875	\$0	\$0	\$0	\$0	\$2,500	\$0	\$2,500
112150	Admin Allocation - Swimming Pool	\$23,833	\$20,132	\$0	\$20,132	\$0	\$31,790	\$0	\$31,790
112190	Depreciation - Swimming Pool	\$13,300	\$0	\$0	\$0	\$0	\$17,740	\$0	\$17,740
Sub Total - SWIMMING POOL OP/EXP		\$235,204	\$188,168	\$0	\$188,168	\$0	\$275,048	\$0	\$299,502
OPERATING INCOME									
112001	Swimming Lesson Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
112003	Pool Daily Admission Fees	(\$8,974)	(\$15,440)	(\$15,440)	\$0	(\$9,000)	\$0	(\$14,319)	\$0
112004	Season Tickets Fees	(\$16,500)	(\$17,778)	(\$17,778)	\$0	(\$16,500)	\$0	(\$17,778)	\$0
112005	Pool Hire Fees	(\$199)	(\$255)	(\$255)	\$0	(\$200)	\$0	(\$239)	\$0
112006	Gym Equipment Hire Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
112007	Pool Teaching Programme Fees	(\$2,000)	(\$2,355)	(\$2,355)	\$0	(\$2,000)	\$0	(\$1,865)	\$0
112008	Vacation Swimming Passes	(\$1,100)	(\$899)	(\$899)	\$0	(\$1,100)	\$0	(\$899)	\$0
112009	Capital Grants and Contributions	(\$6,822)	(\$6,000)	(\$6,000)	\$0	(\$6,822)	\$0	(\$6,822)	\$0
Sub Total - SWIMMING POOL OP/INC		(\$35,595)	(\$42,726)	(\$42,726)	\$0	(\$35,622)	\$0	(\$41,922)	\$0
Total - SWIMMING POOL		\$199,609	\$145,442	(\$42,726)	\$188,168	(\$35,622)	\$275,048	(\$41,922)	\$299,502

**SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT**

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
TELEVISION & RADIO REBROADCASTING									
OPERATING EXPENDITURE									
114005	Banks Rd Telecommunications Tower	\$3,789	\$1,553	\$0	\$1,553	\$0	\$4,684	\$0	\$5,184
Sub Total - TV & RADIO REBROADCASTING OP/EXP		\$3,789	\$1,553	\$0	\$1,553	\$0	\$4,684	\$0	\$5,184
OPERATING INCOME									
114010	Radio & Mobile Tower Site (Including NBN) Fees or Charges	(\$9,278)	(\$9,509)	(\$9,509)	\$0	(\$9,278)	\$0	(\$9,509)	\$0
Sub Total - TV & RADIO REBROADCASTING OP/INC		(\$9,278)	(\$9,509)	(\$9,509)	\$0	(\$9,278)	\$0	(\$9,509)	\$0
Total - TV & RADIO REBROADCASTING		(\$5,489)	(\$7,956)	(\$9,509)	\$1,553	(\$9,278)	\$4,684	(\$9,509)	\$5,184
LIBRARIES									
OPERATING EXPENDITURE									
115100	Library Operations	\$18,363	\$2,301	\$0	\$2,301	\$0	\$34,973	\$0	\$23,101
115101	State Library Grant Expenditure	\$0	\$6,239	\$0	\$6,239	\$0	\$0	\$0	\$11,746
115150	Admin Allocation - Libraries	\$59,275	\$50,054	\$0	\$50,054	\$0	\$79,037	\$0	\$79,037
Sub Total - LIBRARIES OP/EXP		\$77,638	\$58,594	\$0	\$58,594	\$0	\$114,010	\$0	\$113,884
OPERATING INCOME									
115001	State Library Grant Income	(\$8,716)	(\$6,239)	(\$6,239)	\$0	(\$8,716)	\$0	(\$8,716)	\$0
Sub Total - LIBRARIES OP/INC		(\$8,716)	(\$6,239)	(\$6,239)	\$0	(\$8,716)	\$0	(\$8,716)	\$0
Total - LIBRARIES		\$68,922	\$52,355	(\$6,239)	\$58,594	(\$8,716)	\$114,010	(\$8,716)	\$113,884

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
OTHER CULTURE									
OPERATING EXPENDITURE									
116100	Museum	\$3,908	\$7,425	\$0	\$7,425	\$0	\$5,121	\$0	\$9,264
116101	Craft Hut	\$1,282	\$1,216	\$0	\$1,216	\$0	\$1,569	\$0	\$1,686
116102	Support for Sandakan (Ceremony)	\$8,954	\$5,233	\$0	\$5,233	\$0	\$8,954	\$0	\$9,470
116150	Admin Allocated - Other Culture	\$10,827	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
116190	Depreciation - Other Culture	\$8,921	\$0	\$0	\$0	\$0	\$11,895	\$0	\$11,895
Sub Total - OTHER CULTURE OP/EXP		\$33,892	\$23,017	\$0	\$23,017	\$0	\$41,976	\$0	\$46,752
OPERATING INCOME									
116001	Reimbursements - Other Culture	\$0	(\$1,852)	(\$1,852)	\$0	\$0	\$0	(\$1,852)	\$0
116005	Non-Operating Grants & Contributions	(\$5,090)	(\$16,000)	(\$16,000)	\$0	(\$5,090)	\$0	(\$21,090)	\$0
Sub Total - OTHER CULTURE OP/INC		(\$5,090)	(\$17,852)	(\$17,852)	\$0	(\$5,090)	\$0	(\$22,942)	\$0
Total - OTHER CULTURE		\$28,802	\$5,165	(\$17,852)	\$23,017	(\$5,090)	\$41,976	(\$22,942)	\$46,752
Total - RECREATION AND CULTURE		\$700,263	\$495,970	(\$130,376)	\$626,347	(\$242,915)	\$1,121,560	(\$207,794)	\$1,247,931

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
STREETS, RD, BRIDGES, DEPOT - CONSTRUCTION										
OPERATING EXPENDITURE										
Sub Total - ST,RDS,BRIDGES,DEPOT-CONST OP/EXP			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OPERATING INCOME										
121001	RRG Project Grants		(\$931,400)	(\$374,900)	(\$374,900)	\$0	(\$931,400)	\$0	(\$698,851)	\$0
121002	Grants Direct - State - MRD - (OP)		(\$174,581)	(\$174,581)	(\$174,581)	\$0	(\$174,581)	\$0	(\$174,581)	\$0
121003	Grants - Federal - Roads to Recovery Grant (Cap)		(\$362,890)	(\$1,000)	(\$1,000)	\$0	(\$442,826)	\$0	(\$442,826)	\$0
121004	Capital Grants Other & Road Contributions		(\$175,682)	\$0	\$0	\$0	(\$351,364)	\$0	(\$351,364)	\$0
121007	Special Bridge Funding		(\$127,500)	\$0	\$0	\$0	(\$170,000)	\$0	(\$170,000)	\$0
Sub Total - ST,RDS,BRIDGES,DEPOT - CONST OP/INC			(\$1,772,053)	(\$550,481)	(\$550,481)	\$0	(\$2,070,171)	\$0	(\$1,837,622)	\$0
Total - ST,RDS,BRIDGES,DEPOT - CONST			(\$1,772,053)	(\$550,481)	(\$550,481)	\$0	(\$2,070,171)	\$0	(\$1,837,622)	\$0

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
STREETS,ROADS, BRIDGES, DEPOTS - MAINTENANCE									
OPERATING EXPENDITURE									
122100	Depot Building - Building Costs	\$30,731	\$44,127	\$0	\$44,127	\$0	\$45,715	\$0	\$58,277
122101	Depot General Operations	\$11,362	\$12,467	\$0	\$12,467	\$0	\$15,023	\$0	\$18,530
122103	Road Maintenance & Repairs	\$64,205	\$147,391	\$0	\$147,391	\$0	\$88,744	\$0	\$170,356
122107	Maintenance Grading	\$41,953	\$95,534	\$0	\$95,534	\$0	\$112,053	\$0	\$139,491
122105	Repairs & Maint - Bridges	\$119,177	\$162,853	\$0	\$162,853	\$0	\$198,130	\$0	\$227,983
122106	Shire Radio Network Costs	\$3,740	\$124	\$0	\$124	\$0	\$3,740	\$0	\$3,740
122108	Drains & Culverts	\$26,767	\$21,247	\$0	\$21,247	\$0	\$91,606	\$0	\$106,265
122109	Verge Pruning	\$99,441	\$99,807	\$0	\$99,807	\$0	\$104,741	\$0	\$105,541
122110	Verge Spraying	\$3,429	\$19,401	\$0	\$19,401	\$0	\$18,161	\$0	\$24,580
122111	Crossovers Maintenance	\$750	\$79	\$0	\$79	\$0	\$750	\$0	\$750
122112	Town Services Drainage	\$3,930	\$711	\$0	\$711	\$0	\$5,283	\$0	\$5,283
122113	Town Services - Footpaths	\$5,160	\$48	\$0	\$48	\$0	\$5,735	\$0	\$5,035
122114	Town Services Road Repairs	\$8,372	\$2,738	\$0	\$2,738	\$0	\$10,366	\$0	\$10,366
122115	Town Services - Tree Pruning	\$6,791	\$17,088	\$0	\$17,088	\$0	\$6,854	\$0	\$17,326
122116	Street Lighting	\$19,482	\$19,601	\$0	\$19,601	\$0	\$29,100	\$0	\$29,100
122117	Traffic Signs	\$3,785	\$11,166	\$0	\$11,166	\$0	\$5,810	\$0	\$11,310
122120	Roman Road Data Pickup	\$31,200	\$8,557	\$0	\$8,557	\$0	\$31,200	\$0	\$81,200
122121	Town Services - Verge Spraying	\$14,112	\$10,035	\$0	\$10,035	\$0	\$30,486	\$0	\$30,486
122122	Road Sweeping	\$4,563	\$6,055	\$0	\$6,055	\$0	\$9,125	\$0	\$9,125
122123	Emergency Services	\$10,982	\$84,776	\$0	\$84,776	\$0	\$19,197	\$0	\$63,562
122126	Streetscaping Expenses					\$0	\$0	\$0	\$12,000
122131	Rural Street Addressing	\$1,084	\$1,803	\$0	\$1,803	\$0	\$2,345	\$0	\$2,345
122150	Admin Allocated - Road Maintenance	\$269,469	\$227,551	\$0	\$227,551	\$0	\$359,306	\$0	\$359,306
122190	Depreciation - Transport Other	\$16,031	\$0	\$0	\$0	\$0	\$21,375	\$0	\$21,375
122191	Depreciation - Infrastructure	\$19,458	\$0	\$0	\$0	\$0	\$25,945	\$0	\$25,945
122192	Depreciation Roads	\$1,235,587	\$0	\$0	\$0	\$0	\$1,647,515	\$0	\$1,647,515
122193	Depreciation - Bridges	\$484,143	\$0	\$0	\$0	\$0	\$645,550	\$0	\$645,550
122194	Depreciation - Footpaths	\$12,941	\$0	\$0	\$0	\$0	\$17,255	\$0	\$17,255
122195	Depreciation - Drainage	\$203,827	\$0	\$0	\$0	\$0	\$271,780	\$0	\$271,780
123119	Minor Assets and Sundry Items	\$15,000	\$19,529	\$0	\$19,529	\$0	\$20,000	\$0	\$20,000
Sub Total - MTCE STREETS ROADS DEPOTS OP/EXP		\$2,767,472	\$1,012,690	\$0	\$1,012,690	\$0	\$3,842,889	\$0	\$4,141,377
OPERATING INCOME									
122002	Profit on Disposal of Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
122003	Sale of Old Materials and Minor Items	\$0	\$0	\$0	\$0	\$0	\$0		
Sub Total - MTCE STREETS ROADS DEPOTS OP/INC		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - MTCE STREETS ROADS DEPOTS		\$2,767,472	\$1,012,690	\$0	\$1,012,690	\$0	\$3,842,889	\$0	\$4,141,377

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	(Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
TRAFFIC CONTROL										
OPERATING EXPENDITURE										
125150	Administration Allocated - Traffic Control		\$80,821	\$68,247	\$0	\$68,247	\$0	\$107,765	\$0	\$107,765
Sub Total - TRAFFIC CONTROL OP/EXP			\$80,821	\$68,277	\$0	\$68,277	\$0	\$107,765	\$0	\$107,765
OPERATING INCOME										
125001	Licensing Service		(\$19,443)	(\$22,494)	(\$22,494)	\$0	(\$27,400)	\$0	(\$27,400)	\$0
125002	Motor Vehicle Plates		(\$692)	(\$1,380)	(\$1,380)	\$0	(\$1,000)	\$0	(\$1,259)	\$0
Sub Total - TRAFFIC CONTROL OP/INC			(\$20,135)	(\$23,873)	(\$23,873)	\$0	(\$28,400)	\$0	(\$28,659)	\$0
Total - TRAFFIC CONTROL			\$60,685	\$44,404	(\$23,873)	\$68,277	(\$28,400)	\$107,765	(\$28,659)	\$107,765

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
AERODROMES									
OPERATING EXPENDITURE									
126100	Airstrip	\$964	\$5,942	\$0	\$5,942	\$0	\$3,296	\$0	\$45,156
126190	Depreciation - Airport	\$17,047	\$0	\$0	\$0	\$0	\$22,730	\$0	\$22,730
Sub Total - AERODROMES OP/EXP		\$18,011	\$5,942	\$0	\$5,942	\$0	\$26,026	\$0	\$67,886
OPERATING INCOME									
126003	Non-Operating Grants & Subsidies	(\$49,575)	(\$25,754)	(\$25,754)	\$0	(\$49,575)	\$0	(\$49,575)	\$0
Sub Total - AERODROMES OP/INC		(\$49,575)	(\$25,754)	(\$25,754)	\$0	(\$49,575)	\$0	(\$49,575)	\$0
Total - AERODROMES		(\$31,564)	(\$19,812)	(\$25,754)	\$5,942	(\$49,575)	\$26,026	(\$49,575)	\$67,886
Total - TRANSPORT		\$1,024,539	\$486,801	(\$600,108)	\$1,086,909	(\$2,148,146)	\$3,976,680	(\$1,915,856)	\$4,317,028

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
RURAL SERVICES									
OPERATING EXPENDITURE									
131001	Rural Services Expenses	\$28,809	\$0	\$0	\$0	\$0	\$28,809	\$0	\$28,809
Sub Total - RURAL SERVICES OP/EXP		\$28,809	\$0	\$0	\$0	\$0	\$28,809	\$0	\$28,809
OPERATING INCOME									
				\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - RURAL SERVICES OP/INC		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - RURAL SERVICES		\$28,809	\$0	\$0	\$0	\$0	\$28,809	\$0	\$28,809

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
TOURISM AND AREA PROMOTION										
OPERATING EXPENDITURE										
132110		Tourist Bay	\$1,357	\$342	\$0	\$342	\$0	\$2,161	\$0	\$2,161
132103		Community Development Officer	\$0	\$25,770	\$0	\$25,770	\$0	\$0	\$0	\$23,222
132104		Tourist Centre	\$48,416	\$44,093	\$0	\$44,093	\$0	\$56,790	\$0	\$60,714
132106		Promotion Activities	\$16,207	\$1,785	\$0	\$1,785	\$0	\$17,495	\$0	\$17,495
132107	OPSFMIL	Flax Mill Complex General Operations	\$23,934	\$17,491	\$0	\$17,491	\$0	\$31,240	\$0	\$33,360
132108	B0665	Caravan Park/Flax Mill Complex Building Operation	\$72,392	\$57,499	\$0	\$57,499	\$0	\$83,642	\$0	\$126,022
132111		Carnaby Beetle Collection	\$100	\$82	\$0	\$82	\$0	\$100	\$0	\$100
132113		Community Development Officer - Superannuation	\$0	\$293	\$0	\$293	\$0	\$0	\$0	\$440
132114		Community Development Expenses	\$150	\$0	\$0	\$0	\$0	\$150	\$0	\$150
132115		Community Development - Fringe Benefit Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
132116		CDO Vehicle Op Costs GEN	\$0	\$931	\$0	\$931	\$0	\$0	\$0	\$863
132150		Admin Allocated Tourism	\$37,731	\$31,861	\$0	\$31,861	\$0	\$50,310	\$0	\$50,310
132151		Admin Allocated Caravan Pk	\$10,827	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
132190		Depreciation - Tourism/Area Promotion	\$3,217	\$0	\$0	\$0	\$0	\$4,290	\$0	\$4,290
132191		Depreciation - Caravan Pk/Flax	\$33,842	\$0	\$0	\$0	\$0	\$45,125	\$0	\$45,125
Sub Total - TOURISM & AREA PROMOTION OP/EXP			\$248,174	\$189,289	\$0	\$189,289	\$0	\$305,740	\$0	\$378,689
OPERATING INCOME										
132002		Caravan Park & Complex Fees & Charges	(\$45,487)	(\$42,682)	(\$42,682)	\$0	(\$49,000)	\$0	(\$49,000)	\$0
132003		Flax Mill Sheds Storage Charges	(\$10,143)	(\$9,268)	(\$9,268)	\$0	(\$15,000)	\$0	(\$12,172)	\$0
132007		Other Income	(\$2,502)	(\$2,963)	(\$2,963)	\$0	(\$6,600)	\$0	(\$3,500)	\$0
132010		Non-Operating Grants, Subsidies & Contributions			\$0	\$0	(\$521,820)	\$0	(\$75,687)	\$0
Sub Total - TOURISM & AREA PROMOTION OP/INC			(\$58,132)	(\$54,913)	(\$54,913)	\$0	(\$592,420)	\$0	(\$140,359)	\$0
Total - TOURISM & AREA PROMOTION			\$190,042	\$134,376	(\$54,913)	\$189,289	(\$592,420)	\$305,740	(\$140,359)	\$378,689

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
BUILDING CONTROL									
OPERATING EXPENDITURE									
133100	Building Control	\$16,379	\$16,657	\$0	\$16,657	\$0	\$21,840	\$0	\$18,760
133101	Building Control - Other Costs	\$33,850	\$0	\$0	\$0	\$0	\$33,850	\$0	\$33,850
133102	Building Control Superannuation	\$1,638	\$1,326	\$0	\$1,326	\$0	\$2,184	\$0	\$2,184
133103	Building Control - BMO	\$11,866	\$8,962	\$0	\$8,962	\$0	\$13,760	\$0	\$13,760
133150	Admin Allocated - Building Control Expenses	\$10,827	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
Sub Total - BUILDING CONTROL OP/EXP		\$74,560	\$36,087	\$0	\$36,087	\$0	\$86,071	\$0	\$82,991
BUILDING CONTROL OP/INC									
133001	Building Licences (UFEE)	(\$8,108)	(\$17,188)	(\$17,188)	\$0	(\$10,000)	\$0	(\$15,112)	\$0
133002	BCITF Levy - Commission	(\$97)	(\$132)	(\$132)	\$0	(\$120)	\$0	(\$120)	\$0
133003	Builders Services Levy - Commission	(\$158)	(\$225)	(\$225)	\$0	(\$195)	\$0	(\$195)	\$0
Sub Total - BUILDING CONTROL OP/INC		(\$8,363)	(\$17,545)	(\$17,545)	\$0	(\$10,315)	\$0	(\$15,427)	\$0
Total - BUILDING CONTROL		\$66,197	\$18,543	(\$17,545)	\$36,087	(\$10,315)	\$86,071	(\$15,427)	\$82,991
SALEYARDS & MARKETS									
OPERATING EXPENDITURE									
134100	Saleyards	\$22,773	\$2,749	\$0	\$2,749	\$0	\$29,725	\$0	\$13,625
134190	Depreciation - Saleyards & Markets	\$0	\$0	\$0	\$0	\$0	\$113,345	\$0	\$113,345
Sub Total - SALEYARDS & MARKETS OP/EXP		\$22,773	\$2,749	\$0	\$2,749	\$0	\$143,070	\$0	\$126,970
OPERATING INCOME									
134001	Reimbursements - Saleyards	(\$5,200)	(\$1,560)	(\$1,560)	\$0	(\$6,500)	\$0	(\$1,560)	\$0
Sub Total - SALEYARDS & MARKETING OP/INC		(\$5,200)	(\$1,560)	(\$1,560)	\$0	(\$6,500)	\$0	(\$1,560)	\$0
Total - SALEYARDS & MARKETS		\$17,573	\$1,189	(\$1,560)	\$2,749	(\$6,500)	\$143,070	-\$1,560	\$126,970

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
OTHER ECONOMIC SERVICES									
OPERATING EXPENDITURE									
135100	Standpipes Expenses	\$24,549	\$25,350	\$0	\$25,350	\$0	\$36,975	\$0	\$39,720
135102	Economic Development Projects	\$7,500	\$0	\$0	\$0	\$0	\$7,500	\$0	\$7,500
135103	Country Music Festival Expenses	\$15,000	\$15,000	\$0	\$15,000	\$0	\$15,000	\$0	\$15,000
135105	Abel Street Shop	\$8,337	\$6,056	\$0	\$6,056	\$0	\$9,991	\$0	\$9,487
135150	Admin Allocated - Other Economic Development	\$10,827	\$9,143	\$0	\$9,143	\$0	\$14,437	\$0	\$14,437
135190	Depreciation - Develop/Facilities	\$2,899	\$0	\$0	\$0	\$0	\$3,865	\$0	\$3,865
Sub Total - OTHER ECONOMIC SERVICES OP/EXP		\$69,112	\$55,548	\$0	\$55,548	\$0	\$87,768	\$0	\$96,509
OPERATING INCOME									
135001	Standpipe Water	(\$3,344)	(\$7,459)	(\$7,459)	\$0	(\$4,200)	\$0	(\$6,885)	\$0
135005	Abel Street Shop Rental	(\$11,596)	(\$11,909)	(\$11,909)	\$0	(\$15,462)	\$0	(\$15,462)	\$0
Sub Total - OTHER ECONOMIC SERVICES OP/INC		(\$14,940)	(\$19,368)	(\$19,368)	\$0	(\$19,662)	\$0	(\$22,347)	\$0
Total - OTHER ECONOMIC SERVICES		\$54,171	\$36,180	(\$19,368)	\$55,548	(\$19,662)	\$87,768	(\$22,347)	\$96,509
Total - ECONOMIC SERVICES		\$356,792	\$190,288	(\$93,386)	\$283,674	(\$628,897)	\$651,458	(\$179,693)	\$713,968

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
PRIVATE WORKS									
OPERATING EXPENDITURE									
141100	Private Works - Costs	\$11,239	\$9,649	\$0	\$9,649	\$0	\$14,167	\$0	\$7,909
Sub Total - PRIVATE WORKS OP/EXP		\$11,239	\$9,649	\$0	\$9,649	\$0	\$14,167	\$0	\$7,909
OPERATING INCOME									
141001	Private Works - Recoup Charges	(\$12,898)	(\$5,644)	(\$5,644)	\$0	(\$14,167)	\$0	(\$14,167)	\$0
Sub Total - PRIVATE WORKS OP/INC		(\$12,898)	(\$5,644)	(\$5,644)	\$0	(\$14,167)	\$0	(\$14,167)	\$0
Total - PRIVATE WORKS		(\$1,659)	\$4,005	(\$5,644)	\$9,649	(\$14,167)	\$14,167	(\$14,167)	\$7,909

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
PUBLIC WORKS OVERHEADS									
OPERATING EXPENDITURE									
143100	Supervision	\$169,386	\$198,862	\$0	\$198,862	\$0	\$276,503	\$0	\$188,640
143101	Consultant Engineer	\$5,000	\$155	\$0	\$155	\$0	\$5,000	\$0	\$5,000
143102	Works Manager Vehicle Op Costs	\$1,884	\$219	\$0	\$219	\$0	\$2,380	\$0	\$2,380
143103	FBT Works Staff	\$2,700	\$0	\$0	\$0	\$0	\$3,600	\$0	\$3,600
143104	Insurance on Works	\$17,358	\$18,466	\$0	\$18,466	\$0	\$17,358	\$0	\$18,466
143105	Superannuation of Workmen	\$100,632	\$88,439	\$0	\$88,439	\$0	\$143,106	\$0	\$115,000
143106	PWOH Leave - Depot	\$119,423	\$119,484	\$0	\$119,484	\$0	\$185,439	\$0	\$163,789
143107	Protective Clothing	\$5,400	\$917	\$0	\$917	\$0	\$5,400	\$0	\$5,400
143108	Uniforms	\$1,211	\$0	\$0	\$0	\$0	\$1,615	\$0	\$1,615
143109	Training & Meeting Expenses	\$30,391	\$53,911	\$0	\$53,911	\$0	\$41,672	\$0	\$52,882
143110	Occupational Health & Safety	\$27,495	\$44,256	\$0	\$44,256	\$0	\$49,882	\$0	\$57,518
143111	Other Expenses	\$316	\$25	\$0	\$25	\$0	\$4,115	\$0	\$3,115
143115	Provision for Leave Accruals	\$0	\$0	\$0	\$0	\$0	\$5,190	\$0	\$5,190
143116	Conferences and Training Courses (MOW)	\$5,250	\$0	\$0	\$0	\$0	\$5,250	\$0	\$5,250
143117	Works Manager Housing	\$0	\$12,288	\$0	\$12,288	\$0	\$2,400	\$0	\$15,655
143150	Admin Allocated - Works Overhead	\$21,545	\$18,193	\$0	\$18,193	\$0	\$28,728	\$0	\$28,728
143180	LESS PWOH ALLOCATED - PROJECTS	(\$507,992)	(\$521,484)	\$0	(\$521,484)	\$0	(\$777,638)	\$0	(\$672,228)
Sub Total - PUBLIC WORKS O/HEADS OP/EXP		\$0	\$33,730	\$0	\$33,730	\$0	\$0	\$0	\$0
OPERATING INCOME									
143001	Workers Compensation Reimbursements	(\$600)	(\$10,457)	(\$10,457)	\$0	(\$600)	\$0	(\$10,457)	\$0
Sub Total - PUBLIC WORKS O/HEADS OP/INC		(\$600)	(\$10,457)	(\$10,457)	\$0	(\$600)	\$0	(\$10,457)	\$0
Total - PUBLIC WORKS OVERHEADS		(\$600)	\$23,274	(\$10,457)	\$33,730	(\$600)	\$0	(\$10,457)	\$0

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
PLANT OPERATIONS COSTS									
OPERATING EXPENDITURE									
144100	Repair Wages	\$45,191	\$50,948	\$0	\$50,948	\$0	\$59,706	\$0	\$59,706
144101	Fuel & Oil	\$141,540	\$114,484	\$0	\$114,484	\$0	\$200,000	\$0	\$200,000
144102	Tyres & Tubes	\$8,120	\$11,339	\$0	\$11,339	\$0	\$16,215	\$0	\$16,215
144103	Parts and Repairs	\$77,909	\$72,885	\$0	\$72,885	\$0	\$144,275	\$0	\$137,475
144104	Licenses	\$850	\$858	\$0	\$858	\$0	\$8,500	\$0	\$8,500
144105	Insurance	\$33,725	\$32,506	\$0	\$32,506	\$0	\$33,725	\$0	\$32,506
144106	Blades & Points	\$12,000	\$4,952	\$0	\$4,952	\$0	\$15,000	\$0	\$15,000
144107	Expendable Tools	\$9,075	\$10,377	\$0	\$10,377	\$0	\$12,100	\$0	\$12,100
144110	Superannuation - Mechanic	\$8,228	\$6,880	\$0	\$6,880	\$0	\$10,870	\$0	\$10,870
144150	Admin Allocated POC	\$6,453	\$5,449	\$0	\$5,449	\$0	\$8,604	\$0	\$8,604
144190	Depreciation - Plant	\$173,299	\$0	\$0	\$0	\$0	\$231,075	\$0	\$231,075
144180	LESS POC ALLOCATED - PROJECTS	(\$516,390)	(\$599,646)	\$0	(\$599,646)	\$0	(\$740,070)	\$0	(\$732,051)
Sub Total - PLANT OPERATIONS COSTS OP/EXP		\$0	(\$288,939)	\$0	(\$288,939)	\$0	\$0	\$0	\$0
OPERATING INCOME									
144001	Diesel Rebate	(\$23,471)	\$0	\$0	\$0	(\$35,000)	\$0	(\$35,000)	\$0
144002	Reimbursements - Operating	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - PLANT OPERATIONS COSTS OP/INC		(\$23,471)	\$0	\$0	\$0	(\$35,000)	\$0	(\$35,000)	\$0
Total - PLANT OPERATIONS COSTS		(\$23,471)	(\$288,939)	\$0	(\$288,939)	(\$35,000)	\$0	(\$35,000)	\$0

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	(Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
SALARIES AND WAGES										
OPERATING EXPENDITURE										
145100	Gross Total Salaries and Wages		\$2,603,050	\$2,547,347	\$0	\$2,547,347	\$0	\$3,470,872	\$0	\$3,425,657
145130	LESS SALS/WAGES ALLOCATED		(\$2,603,050)	(\$2,533,458)	\$0	(\$2,533,458)	\$0	(\$3,470,872)	\$0	(\$3,425,657)
145101	Workers Compensation Expenses		\$0	\$27,332	\$0	\$27,332	\$0	\$0	\$0	\$19,015
Sub Total - SALARIES AND WAGES OP/EXP			\$0	\$41,221	\$0	\$41,221	\$0	\$0	\$0	\$19,015
OPERATING INCOME										
145001	Reimbursements - Administration		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - SALARIES AND WAGES OP/INC			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - SALARIES AND WAGES			\$0	\$41,221	\$0	\$41,221	\$0	\$0	\$0	\$19,015

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
ADMINISTRATION									
OPERATING EXPENDITURE									
146100	Advertising	\$4,681	\$6,671	\$0	\$6,671	\$0	\$7,745	\$0	\$8,040
146101	Audit Fees	\$35,000	\$0	\$0	\$0	\$0	\$35,000	\$0	\$35,000
146102	Bank Fees	\$9,029	\$6,407	\$0	\$6,407	\$0	\$10,400	\$0	\$10,400
146103	Administration Bldg Costs	\$37,500	\$35,443	\$0	\$35,443	\$0	\$57,528	\$0	\$56,856
146105	Administration Staff Employee Costs	\$527,813	\$521,600	\$0	\$521,600	\$0	\$803,256	\$0	\$821,343
146106	Consultants	\$80,734	\$48,225	\$0	\$48,225	\$0	\$145,000	\$0	\$145,450
146108	Insurance	\$12,889	\$13,088	\$0	\$13,088	\$0	\$12,889	\$0	\$13,087
146109	Legal Expenses	\$8,022	\$8,746	\$0	\$8,746	\$0	\$14,000	\$0	\$30,000
146110	IT System Operation & maintenance	\$101,597	\$102,488	\$0	\$102,488	\$0	\$120,174	\$0	\$121,662
146111	Office Equipment Maintenance	\$5,000	\$2,179	\$0	\$2,179	\$0	\$5,000	\$0	\$5,000
146112	Administration - Postage & Freight	\$3,475	\$3,788	\$0	\$3,788	\$0	\$5,300	\$0	\$5,300
146113	Printing and Stationery	\$10,948	\$8,699	\$0	\$8,699	\$0	\$12,500	\$0	\$12,500
146114	Administration Vehicle Costs	\$2,965	\$0	\$0	\$0	\$0	\$2,965	\$0	\$2,965
146115	Administration - Fringe Benefits Tax	\$2,625	\$0	\$0	\$0	\$0	\$3,500	\$0	\$3,500
146117	Employers Indemnity Insurance	\$16,174	\$33,181	\$0	\$33,181	\$0	\$16,174	\$0	\$33,181
146118	Subscriptions	\$23,440	\$16,681	\$0	\$16,681	\$0	\$23,440	\$0	\$17,000
146120	Uniform Allowance	\$1,980	\$295	\$0	\$295	\$0	\$3,000	\$0	\$3,000
146121	Telephones	\$11,737	\$6,357	\$0	\$6,357	\$0	\$15,650	\$0	\$12,000
146122	Minor Furniture & Equip Under \$2000	\$7,500	\$1,453	\$0	\$1,453	\$0	\$7,500	\$0	\$13,300
146123	Conferences/Training/Professional Development	\$8,611	\$8,405	\$0	\$8,405	\$0	\$13,385	\$0	\$13,385
146124	Superannuation	\$94,712	\$54,128	\$0	\$54,128	\$0	\$117,610	\$0	\$101,580
146126	Employee (Packaging) Costs	\$0	\$0	\$0	\$0	\$0	\$725	\$0	\$725
146128	Administration - OSH	\$3,500	\$2,145	\$0	\$2,145	\$0	\$3,500	\$0	\$3,500
146190	Depreciation - Administration	\$16,507	\$0	\$0	\$0	\$0	\$22,010	\$0	\$22,010
146150	Less Administration Costs Alloc	(\$1,026,438)	(\$923,502)	\$0	(\$923,502)	\$0	(\$1,458,251)	\$0	(\$1,458,798)
Sub Total - ADMINISTRATION OP/EXP		\$0	(\$29,897)	\$0	(\$29,897)	\$0	\$0	\$0	\$31,986
OPERATING INCOME - ADMINISTRATION									
146001	Reimbursements - Administration	(\$3,760)	(\$9,722)	(\$9,722)	\$0	(\$3,760)	\$0	(\$9,268)	\$0
Sub Total - ADMINISTRATION OP/INC		(\$3,760)	(\$9,767)	(\$9,767)	\$0	(\$3,760)	\$0	(\$9,268)	\$0
Total - ADMINISTRATION		(\$3,760)	(\$39,664)	(\$9,767)	(\$29,897)	(\$3,760)	\$0	(\$9,268)	\$31,986

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
UNCLASSIFIED									
OPERATING EXPENDITURE									
147013	Loan 119 Interest Expense	\$0	\$0	\$0	\$0	\$0	\$2,125	\$0	\$0
149001	Rylington Park Operational Expenses	\$394,648	\$479,575	\$0	\$479,575	\$0	\$674,747	\$0	\$697,198
149002	Rylington Park Asset Depreciation	\$0	\$0	\$0	\$0			\$0	\$16,885
Sub Total - UNCLASSIFIED OP/EXP		\$394,648	\$479,575	\$0	\$479,575	\$0	\$676,872	\$0	\$714,083
OPERATING INCOME									
147100	Revaluation Profit on Local Govt House Unit Trust	\$0	\$0	\$0	\$0				
149101	Rylington Park Income	(\$541,280)	(\$921,294)	(\$921,294)	\$0	(\$725,250)	\$0	(\$874,343)	\$0
Sub Total - UNCLASSIFIED OP/INC		(\$541,280)	(\$921,294)	(\$921,294)	\$0	(\$725,250)	\$0	(\$874,343)	\$0
Total - UNCLASSIFIED		(\$146,632)	(\$441,719)	(\$921,294)	\$479,575	(\$725,250)	\$676,872	(\$874,343)	\$714,083
Total - OTHER PROPERTY AND SERVICES		(\$176,122)	(\$701,822)	(\$947,162)	\$245,340	(\$778,777)	\$691,039	(\$943,235)	\$772,993

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
TRANSFERS TO/FROM RESERVES									
EXPENDITURE									
300101	Transfer to Reserves	\$3,750	\$1,369	\$0	\$1,369	\$0	\$138,704	\$0	\$359,204
Sub Total - TRANSFER TO OTHER COUNCIL FUNDS		\$3,750	\$1,369	\$0	\$1,369	\$0	\$138,704	\$0	\$359,204
INCOME									
300102	Transfer from Reserves	\$0	\$0	\$0	\$0	(\$135,997)	\$0	(\$309,130)	\$0
Total - TRANSFER FROM OTHER COUNCIL FUNDS		\$0	\$0	\$0	\$0	(\$135,997)	\$0	(\$309,130)	\$0
Total - FUND TRANSFER		\$3,750	\$1,369	\$0	\$1,369	(\$135,997)	\$138,704	(\$309,130)	\$359,204
000000 (Surplus) / Deficit - Carried Forward		(\$2,118,000)	(\$2,248,459)	(\$2,248,459)	\$0	(\$2,118,001)	\$0	(\$2,248,459)	\$0
Sub Total - SURPLUS C/FWD		(\$2,118,000)	(\$2,248,459)	(\$2,248,459)	\$0	(\$2,118,001)	\$0	(\$2,248,459)	\$0
Total - SURPLUS		(\$2,118,000)	(\$2,248,459)	(\$2,248,459)	\$0	(\$2,118,001)	\$0	(\$2,248,459)	\$0
NEW LONG TERM LOANS									
INCOME									
147500	New Loan Land Acquisition	(\$170,000)	\$0	\$0	\$0	(\$170,000)	\$0	\$0	\$0
Sub Total - LONG TERM LOANS		(\$170,000)	\$0	\$0	\$0	(\$170,000)	\$0	\$0	\$0
Total - DEFERRED ASSETS		(\$170,000)	\$0	\$0	\$0	(\$170,000)	\$0	\$0	\$0
LIABILITY LOANS & FINANCE LEASES - PRINCIPAL REPAYMENTS									
CAPITAL EXPENDITURE									
146800	Principal Repayment on Loans	\$19,040	\$20,178	\$0	\$20,178	\$0	\$27,711	\$0	\$20,177
146801	Principal Repayments - Finance Leases					\$0	\$0	\$0	\$6,051
Sub Total - LOAN REPAYMENTS		\$19,040	\$20,178	\$0	\$20,178	\$0	\$27,711	\$0	\$26,228
CAPITAL INCOME									

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L JOB	YTD COMPARATIVES PERIOD 09 31 MARCH 2022		CURRENT YEAR YTD ACTUALS 31 MARCH 2022		ADOPTED BUDGET 2021-22		AMENDED BUDGET 30 JUNE 2022	
	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
Sub Total - LOANS RAISED	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - NON CURRENT LIABILITIES	\$19,040	\$20,178	\$0	\$20,178	\$0	\$27,711	\$0	\$26,228
OPERATING ACTIVITIES EXCLUDED FROM BUDGET								
000000 Depreciation Written Back	(\$2,605,223)	\$0	\$0	\$0	\$0	(\$3,586,939)	\$0	(\$3,586,939)
000000 Book Value of Assets Sold Written Back	(\$62,500)	\$0	\$0	\$0	\$0	(\$62,500)	\$0	(\$62,500)
00000 Profit/Loss on Sale of Asset Written Back	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Movement in Accrued Interest on Loans	\$0	\$0	\$0	\$0	\$0	\$0		
Movement in Stock On Hand	\$0	\$0	\$0	\$0	\$0	\$0		
Movement in Accrued Expenses	\$0	\$0	\$0	\$0	\$0	\$0		
Movement in Accrued Wages	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Movement in Employee Benefits (Current)	\$0	\$0	\$0	\$0	\$0	\$0		
000000 Long Service Leave - Non Cash	\$0	\$0	\$0	\$0	\$0	(\$40,045)	\$0	(\$40,045)
000000 Deferred Pensioner Rates		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - OPERATING ACTIVITIES EXCLUDED	(\$2,667,723)	\$0	\$0	\$0	\$0	(\$3,689,484)	\$0	(\$3,689,484)
Total - OPERATING ACTIVITIES EXCLUDED	(\$2,667,723)	\$0	\$0	\$0	\$0	(\$3,689,484)	\$0	(\$3,689,484)

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
 And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
FURNITURE AND EQUIPMENT										
TRANSPORT										
CAPITAL EXPENDITURE										
122405	Depot Furniture & Equipment Renewal		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub Total - CAPITAL WORKS			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - TRANSPORT			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total - FURNITURE AND EQUIPMENT			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
LAND AND BUILDINGS										
HOUSING										
CAPITAL EXPENDITURE										
092400	Capital Improvements - Land & Buildings		\$0	\$43,670	\$0	\$43,670	\$0	\$0	\$0	\$7,677
092406	Land Acquisition		\$170,000	\$219,627	\$0	\$219,627	\$0	\$170,000	\$0	\$219,627
Sub Total - CAPITAL WORKS			\$170,000	\$263,298	\$0	\$263,298	\$0	\$170,000	\$0	\$227,304
Total - HOUSING			\$170,000	\$263,298	\$0	\$263,298	\$0	\$170,000	\$0	\$227,304
LAND AND BUILDINGS										
RECREATION AND CULTURE										
CAPITAL EXPENDITURE										
111403	LRCI 2 - Lesser Hall Flooring Replacement		\$15,000	\$0	\$0	\$0	\$0	\$15,000	\$0	\$15,000
112400	Swimming Pool Buildings - Lands & Buildings		\$13,644	\$8,670	\$0	\$8,670	\$0	\$13,644	\$0	\$13,644
112504 LRC006	LRCI 2 - Swimming Pool Buildings - Gym Access Upgrade		\$55,000	\$86,870	\$0	\$86,870	\$0	\$55,000	\$0	\$86,870
112504 LRC007	LRCI 2 - Swimming Pool Buildings - Floor Covering Replacement		\$52,000	\$26,478	\$0	\$26,478	\$0	\$52,000	\$0	\$26,478
Sub Total - CAPITAL WORKS			\$135,644	\$122,018	\$0	\$122,018	\$0	\$135,644	\$0	\$141,992
Total - RECREATION AND CULTURE			\$135,644	\$122,018	\$0	\$122,018	\$0	\$135,644	\$0	\$141,992
LAND AND BUILDINGS										
ECONOMIC SERVICES										
EXPENDITURE										
132411 LRC004	Local Roads & Community Building Projects - FlaxMill		\$108,900	\$73,281	\$0	\$73,281	\$0	\$108,900	\$0	\$108,900
Sub Total - CAPITAL WORKS			\$108,900	\$73,281	\$0	\$73,281	\$0	\$108,900	\$0	\$108,900
Total - ECONOMIC SERVICES			\$108,900	\$73,281	\$0	\$73,281	\$0	\$108,900	\$0	\$108,900

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
LAND AND BUILDINGS										
OTHER PROPERTY AND SERVICES										
CAPITAL EXPENDITURE										
146605	Administration Building - Building Renewals & Upgrades		\$0	\$5,000	\$0	\$5,000	\$0	\$0	\$0	\$5,000
149503	Rylington Park House Capital		\$55,000	\$3,309	\$0	\$3,309	\$0	\$55,000	\$0	\$56,925
New	Rylington Buildings Renewal Works						\$0	\$0	\$0	\$15,000
149501	Rylington Park Chemical Shed		\$15,000	\$9,619	\$0	\$9,619	\$0	\$15,000	\$0	\$9,619
Sub Total - CAPITAL WORKS			\$70,000	\$17,928	\$0	\$17,928	\$0	\$70,000	\$0	\$86,544
Total - OTHER PROPERTY AND SERVICES			\$70,000	\$17,928	\$0	\$17,928	\$0	\$70,000	\$0	\$86,544
Total - LAND AND BUILDINGS			\$484,544	\$476,590	\$0	\$476,590	\$0	\$484,544	\$0	\$564,740

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
PLANT AND EQUIPMENT									
RECREATION AND CULTURE									
CAPITAL EXPENDITURE									
112500	Swimming Pool - Plant & Equipment	\$7,500	\$0	\$0	\$0	\$0	\$7,500	\$0	\$7,500
Sub Total - CAPITAL WORKS		\$7,500	\$5,000	\$0	\$5,000	\$0	\$7,500	\$0	\$7,500
Total - RECREATION AND CULTURE		\$7,500	\$5,000	\$0	\$5,000	\$0	\$7,500	\$0	\$7,500
PLANT AND EQUIPMENT									
TRANSPORT									
CAPITAL EXPENDITURE									
123603	DWS - Fleet Vehicles	\$48,000	\$0	\$0	\$0	\$0	\$48,000	\$0	\$48,000
123609	Light Plant (eg Portable Traffic Lights) - Plant & Equip	\$35,000	\$0	\$0	\$0	\$0	\$35,000	\$0	\$35,000
123610	Heavy Plant (Graders etc) Purchases	\$706,500	\$166,463	\$0	\$166,463	\$0	\$706,500	\$0	\$364,463
Sub Total - CAPITAL WORKS		\$789,500	\$166,463	\$0	\$166,463	\$0	\$789,500	\$0	\$447,463
Total - TRANSPORT		\$789,500	\$166,463	\$0	\$166,463	\$0	\$789,500	\$0	\$447,463
PLANT AND EQUIPMENT									
OTHER PROPERTY & SERVICES									
CAPITAL EXPENDITURE									
146500	Pool Vehicle	\$60,000	\$0	\$0	\$0	\$0	\$60,000	\$0	\$50,000
147450	Rylington Park Plant & Equipment	\$60,000	\$0	\$0	\$0	\$0	\$60,000	\$0	\$116,400
149502	Rylington Park Dorm Rooms Air Conditioners	\$11,500	\$29,356	\$0	\$29,356	\$0	\$11,500	\$0	\$13,356
Sub Total - CAPITAL WORKS		\$131,500	\$29,356	\$0	\$29,356	\$0	\$131,500	\$0	\$179,756
Total - OTHER PROPERTY & SERVICES		\$131,500	\$29,356	\$0	\$29,356	\$0	\$131,500	\$0	\$179,756
Total - PLANT AND EQUIPMENT		\$928,500	\$200,819	\$0	\$200,819	\$0	\$928,500	\$0	\$634,719

**SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT**

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
ROAD INFRASTRUCTURE CAPITAL										
ROAD CONSTRUCTION										
121403	x	ROADS TO RECOVERY PROJECTS								
121403	RTR003	RTR Scotts Brook Road	\$123,987	\$121	\$0	\$121	\$0	\$123,987	\$0	\$139,752
121403	RTR007	Kulikup Rd South	\$255,006	\$909	\$0	\$909	\$0	\$255,006	\$0	\$255,006
121403	RTR013	RTR - Westbourne Road	\$70,408	\$121	\$0	\$121	\$0	\$70,408	\$0	\$70,408
121404	xx	REGIONAL ROAD GROUP			\$0	\$0	\$0	\$0		
121404	RRG148	RRG Boyup Brook-Cranbrook Rd	\$333,000	\$2,379	\$0	\$2,379	\$0	\$333,000	\$0	\$333,000
121404	RRG210	RRG Boyup Brook-Arthur River Rd 2020/21 C/Fwd	\$501,000	\$523,719	\$0	\$523,719	\$0	\$501,000	\$0	\$501,000
121404	RGA210	RRG Boyup Brook-Arthur River Rd	\$526,000	\$109,012	\$0	\$109,012	\$0	\$526,000	\$0	\$376,000
121404	RRG004	RRG Winnejup Road	\$237,000	\$1,415	\$0	\$1,415	\$0	\$237,000	\$0	\$0
121400		MUNICIPAL ROAD PROJECTS			\$0		\$0	\$0		
121400	MU501	Muni - Gravel Pit Rehabilitation	\$13,332	\$0	\$0	\$0	\$0	\$20,000	\$0	\$20,000
121401		Municipal Funded Gravel Sheetting Road Projects	\$40,025	\$0	\$0	\$0	\$0	\$40,025	\$0	\$40,025
121410		Municipal Funded - Winter Grading	\$216,615	\$380,642	\$0	\$380,642	\$0	\$361,025	\$0	\$380,643
121450	MR0000	BRIDGES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
121450	MR0741	BRIDGES - Bridge 0741 - Boree Gully Rd	\$170,000	\$0	\$0	\$0	\$0	\$170,000	\$0	\$170,000
Sub Total - CAPITAL WORKS			\$2,486,373	\$1,018,317	\$0	\$1,018,317	\$0	\$2,637,451	\$0	\$2,285,834
Total - ROADS			\$2,486,373	\$1,018,317	\$0	\$1,018,317	\$0	\$2,637,451	\$0	\$2,285,834
Total - INFRASTRUCTURE ASSETS ROADS			\$2,486,373	\$1,018,317	\$0	\$1,018,317	\$0	\$2,637,451	\$0	\$2,285,834

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
FOOTPATHS										
121700		Footpaths - Construction								
121700	FP111	Inglis St Footpath Construction	\$26,250	\$0			\$0	\$26,250	\$0	\$26,250
121700	FP107	Bridge Street Footpath Construction	\$42,000	\$0			\$0	\$42,000	\$0	\$42,000
121701		Bike Paths - Construction	\$75,600	\$0	\$0	\$0	\$0	\$75,600	\$0	\$0
Sub Total - CAPITAL WORKS			\$143,850	\$0	\$0	\$0	\$0	\$143,850	\$0	\$68,250
Total - TRANSPORT - FOOTPATHS			\$143,850	\$0	\$0	\$0	\$0	\$143,850	\$0	\$68,250
Total - FOOTPATH ASSETS			\$143,850	\$0	\$0	\$0	\$0	\$143,850	\$0	\$68,250

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
 And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
AIRPORT										
126400	Aerodrome Infrastructure		\$49,575	\$0	\$0	\$0	\$0	\$49,575	\$0	\$49,575
Sub Total - CAPITAL WORKS			\$49,575	\$0	\$0	\$0	\$0	\$49,575	\$0	\$49,575
Total - TRANSPORT - AERODROMES			\$49,575	\$0	\$0	\$0	\$0	\$49,575	\$0	\$49,575
Total - AERODROME ASSETS			\$49,575	\$0	\$0	\$0	\$0	\$49,575	\$0	\$49,575

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
 And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
DRAINAGE										
121411		Drainage Projects - Municipal Funded								
121411	DC007	Kulikup South Rd Drainage	\$0	\$606	\$0	\$606	\$0	\$0		
121411	DC027	Eulin Crossing RD Culvert	\$44,672	\$0	\$0	\$0	\$0	\$44,672	\$0	\$44,672
121411	DC163	Spencer Road Culvert	\$0	\$0	\$0	\$0	\$0	\$5,203	\$0	\$5,203
Sub Total - CAPITAL WORKS			\$44,672	\$606	\$0	\$606	\$0	\$49,875	\$0	\$49,875
Total - TRANSPORT - DRAINAGE			\$44,672	\$606	\$0	\$606	\$0	\$49,875	\$0	\$49,875
Total - DRAINAGE ASSETS			\$44,672	\$606	\$0	\$606	\$0	\$49,875	\$0	\$49,875

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
 And Type Of Activities Within The Programme

G/L	JOB	Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
PARKS & OVALS INFRASTRUCTURE									
113903	Sandakan Memorial Capital Improvements	\$11,300	\$6,374	\$0	\$6,374	\$0	\$11,300	\$0	\$11,300
Sub Total - CAPITAL WORKS		\$11,300	\$6,374	\$0	\$6,374	\$0	\$11,300	\$0	\$11,300
Total - OTHER SPORT & RECREATION - PARKS & OVALS		\$11,300	\$6,374	\$0	\$6,374	\$0	\$11,300	\$0	\$11,300
Total - PARKS & OVALS ASSETS		\$11,300	\$6,374	\$0	\$6,374	\$0	\$11,300	\$0	\$11,300

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
RECREATION INFRASTRUCTURE										
112503		LRCI 2 Projects - Swimming Pool								
112503	LRC010	LRCI 2 Swimming Pool Capital Upgrades	\$47,059	\$59,645	\$0	\$59,645	\$0	\$84,464	\$0	\$79,130
112503	LRC016	LRCI 2 - Swimming Pool Chlorine System Replacement	\$0	\$30,733	\$0	\$30,733	\$0	\$33,500	\$0	\$30,733
113906		Recreation Infrastructure - Capital Renewals	\$75,000	\$0	\$0	\$0	\$0	\$150,000	\$0	\$40,000
113911		Football Oval Lighting Upgrade - CSRFF	\$172,500	\$138,032	\$0	\$138,032	\$0	\$230,000	\$0	\$230,000
Sub Total - CAPITAL WORKS			\$294,559	\$228,410	\$0	\$228,410	\$0	\$497,964	\$0	\$379,863
Total - RECREATION INFRASTRUCTURE			\$294,559	\$228,410	\$0	\$228,410	\$0	\$497,964	\$0	\$379,863
Total - INFRASTRUCTURE ASSETS - RECREATION			\$294,559	\$228,410	\$0	\$228,410	\$0	\$497,964	\$0	\$379,863

SHIRE OF BOYUP BROOK
MONTHLY FINANCIAL REPORT

Details By Function Under The Following Program Titles
And Type Of Activities Within The Programme

G/L	JOB		Budget	Actual	Income	Expenditure	Income	Expenditure	Income	Expenditure
INFRASTRUCTURE OTHER										
ECONOMIC SERVICES										
132901		Flaxmill Fence & Water Supply Upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$108,125
132410	LRC002	LRCI 1 - Flax Mill / Caravan Park Upgrades	\$0	\$7,033	\$0	\$7,033	\$0	\$0	\$0	\$7,033
132902		Boyup Brook Viewing Tower Construction	\$248,728	\$0	\$0	\$0	\$0	\$621,820	\$0	\$0
Sub Total - CAPITAL WORKS			\$248,728	\$7,033	\$0	\$7,033	\$0	\$621,820	\$0	\$115,158
Total - ECONOMIC SERVICES			\$248,728	\$7,033	\$0	\$7,033	\$0	\$621,820	\$0	\$115,158
INFRASTRUCTURE OTHER										
OTHER PROPERTY & SERVICES										
149500		Rylington Park Rain Water Tank	\$25,000	\$11,561	\$0	\$11,561	\$0	\$25,000	\$0	\$30,775
New		Flexi-N Tank	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,700
New		Rylington Fencing Renewal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40,500
Sub Total - CAPITAL WORKS			\$25,000	\$11,561	\$0	\$11,561	\$0	\$25,000	\$0	\$77,975
Total - OTHER PROPERTY & SERVICES			\$25,000	\$11,561	\$0	\$11,561	\$0	\$25,000	\$0	\$77,975
Total - INFRASTRUCTURE ASSETS - OTHER			\$273,728	\$18,594	\$0	\$18,594	\$0	\$646,820	\$0	\$193,133
GRAND TOTALS			(\$844,668)	(\$2,748,262)	(\$9,056,808)	\$6,308,545	(\$11,884,765)	\$11,884,765	(\$11,608,628)	\$11,552,325

**SHIRE OF BOYUP BROOK
RESERVE ACCOUNTS
FOR THE PERIOD ENDING**

31 MARCH 2022

LEAVE RESERVE

Purpose - To be used to fund annual and long service leave and redundancy requirements.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	123	123
Transfer from Accumulated Surplus		
- Interest Earned	0	363
- Other Transfers	0	33,000
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	123	33,486

UNSPENT GRANTS RESERVE

Purpose - To quarantine forward grant payments, to fund expenses incurred in the intended year.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	79	78
Transfer from Accumulated Surplus		
- Interest Earned	0	0
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	79	78

PLANT RESERVE

Purpose - To be used to fund the purchase of plant items, including graders, trucks, utes, sedans, rollers.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	149,961	148,497
Transfer from Accumulated Surplus		
- Interest Earned	86	313
- Other Transfers	0	75,170
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	150,047	223,980

BUILDING RESERVE

Purpose - to be used to fund future maintenance of shire owned buildings, including heritage buildings.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	714,025	714,025
Transfer from Accumulated Surplus		
- Interest Earned	409	1,491
- Other Transfers	0	25,170
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	714,434	740,686

**SHIRE OF BOYUP BROOK
RESERVE ACCOUNTS
FOR THE PERIOD ENDING**

31 MARCH 2022

COMMUNITY HOUSING RESERVE

Purpose - to be used to fund maintenance of the Homeswest Housing Units in Forrest & Proctor Streets.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	214,518	214,517
Transfer from Accumulated Surplus		
- Interest Earned	122	451
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	<u>214,640</u>	<u>214,968</u>

EMERGENCY RESERVE

Purpose - to be used to fund emergency situations outside working hours for example trees on roads, ETC

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	12,479	12,479
Transfer from Accumulated Surplus		
- Interest Earned	7	26
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	<u>12,486</u>	<u>12,505</u>

INSURANCE CLAIM RESERVE

Purpose - to be used to fund the excess on certain insurance claims.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	15,207	15,207
Transfer from Accumulated Surplus		
- Interest Earned	9	32
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	<u>15,216</u>	<u>15,239</u>

**SHIRE OF BOYUP BROOK
RESERVE ACCOUNTS
FOR THE PERIOD ENDING**

31 MARCH 2022

OTHER RECREATION RESERVE

Purpose - to be used to fund improvements to the recreation facilities and grounds.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	50,557	50,557
Transfer from Accumulated Surplus		
- Interest Earned	29	106
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	50,586	50,663

COMMERCIAL RESERVE

Purpose - to be used to fund future economic development, enhancement & promotion of the district.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	451,591	451,591
Transfer from Accumulated Surplus		
- Interest Earned	259	944
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	451,850	452,535

BRIDGES RESERVE

Purpose - to be used to fund future requirements of bridge works.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	155	155
Transfer from Accumulated Surplus		
- Interest Earned	0	0
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	155	155

AGED ACCOMMODATION RESERVE

Purpose - to be used to fund future requirements of aged accommodation.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	31,608	27,841
Transfer from Accumulated Surplus		
- Interest Earned	18	59
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	31,626	27,900

**SHIRE OF BOYUP BROOK
RESERVE ACCOUNTS
FOR THE PERIOD ENDING**

31 MARCH 2022

ROAD CONTRIBUTIONS RESERVE

Purpose - to set aside contributions from developers.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	28,609	28,330
Transfer from Accumulated Surplus		
- Interest Earned	16	60
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	28,625	28,390

IT/OFFICE EQUIPMENT RESERVE

Purpose - to be used to fund future IT requirements.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	39,917	39,527
Transfer from Accumulated Surplus		
- Interest Earned	23	83
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	39,940	39,610

CIVIC RECEPTIONS RESERVE

Purpose - to quarantine unspent 'Refreshments and Receptions' budgets to fund future receptions needs.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	16,776	16,612
Transfer from Accumulated Surplus		
- Interest Earned	10	35
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	16,786	16,647

**SHIRE OF BOYUP BROOK
RESERVE ACCOUNTS
FOR THE PERIOD ENDING**

31 MARCH 2022

UNSPENT COMMUNITY GRANTS RESERVE

Purpose - for the purpose of holding unallocated/spent community donation/MOU budgets (2% of annual rates), to fund extraordinary community donations or MOU's.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	122	121
Transfer from Accumulated Surplus		
- Interest Earned	0	0
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	0
CLOSING BALANCE	122	121

RYLINGTON PARK WORKING CAPITAL RESERVE

Purpose - to be used as working capital for the running and maintenance of Rylington Park Farm.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	250,774	250,774
Transfer from Accumulated Surplus		
- Interest Earned	144	529
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	(85,997)
CLOSING BALANCE	250,918	165,306

RYLINGTON PARK RESERVE

Purpose - to be used for community contributions towards major community projects within the Boyup Brook community.

	ACTUAL 2021-22	BUDGET 2021-22
Opening Balance	412,828	412,828
Transfer from Accumulated Surplus		
- Interest Earned	237	871
- Other Transfers	0	0
Less Transfer to Accumulated Surplus		
-Transfer to Municipal Fund	0	(50,000)
CLOSING BALANCE	413,065	363,699

TOTAL RESERVES

2,390,698	2,385,968
------------------	------------------

**SHIRE OF BOYUP BROOK
LOAN SCHEDULE
FOR THE PERIOD ENDING 31 MARCH 2022**

LOAN DESCRIPTION	LOAN No.	PRINCIPAL 01.07.21	LOANS RAISED		INTEREST		PRINCIPAL		CLOSING BALANCE
			Budget 2021-22	Actual 2021-22	Budget 2021-22	Actual 2021-22	Budget 2021-22	Actual 2021-22	
HOUSING									
Staff House	115	40,324	0	0	2,268	2,267	7,158	3,528	36,796
Recreation & Culture									
Swimming Pool	114	73,356	0	0	4,132	4,132	13,019	6,415	66,941
		113,680	0	0	6,400	6,399	20,177	9,943	103,737



Approved Plantation Management Plan
31 March 2022 - Council Meeting
Shire of Boyup Brook

Plantation Management Plan

Cootamundra Farm, McAlinden
Water Corporation



1.	INTRODUCTION	4
2.	LAND INFORMATION.....	5
2.1	Area	5
2.2	Locality Map and access roads	5
2.3	Natural features	5
2.4	Improvements.....	7
3.	TREE FARM ESTABLISHMENT PLAN.....	10
3.1	Species to be planted and source of stock	10
3.2	Areas to be planted, compartment sizes	10
3.3	Access roads and firebreaks	10
3.4	Site preparation and planting technique	10
3.5	Direction of planting lines in relation to contours and natural drainage	11
3.6	Description of weed control methods and buffer zones.....	11
3.7	Control of vermin and declared weeds	11
3.8	Clearing of woody vegetation (native or exotic species).....	11
4.	TREE FARM TENDING PLAN	13
4.1	Fertilising schedule	13
4.2	Weed management	13
4.3	Monitoring and contingencies for disease and pests	13
4.4	Road and break maintenance	13
4.5	Grazing strategy.....	13
4.6	Firebreak Pruning	14
4.7	Thinning schedule	14
5.	FIRE MANAGEMENT PLAN.....	15
5.1	Landowner property details.....	15
5.2	Property details of neighbouring locations.....	16
5.3	Local fire agencies.....	16
5.4	Risk of ignition	17
5.5	Detection of fires	17
5.6	Location of fire control equipment.....	17
5.7	Initial response on fires	19
5.8	Fire breaks	20
5.9	Method of road, track and firebreak maintenance.....	20
5.10	Water supplies.....	21
5.11	Direction indicators of water points, road signs and other features.....	21
5.12	Measures to protect infrastructure, powerlines, gas pipelines and Communication Cables.....	21
5.13	Surrounding fuels	21
6.	TIMBER HARVESTING PLAN.....	23
6.1	Location of harvesting operation	23
6.2	Timetable (to be updated at time of operations).....	23
6.3	Harvesting operations	23
6.4	Machinery and transport	23
6.5	Staging	23
6.6	External Road Management.....	24
6.7	Environmental safeguards	24
6.8	Safety.....	24
	APPENDIX.....	25

All relevant maps and plans are attached.

The following maps and plans are attached:

Map 1: Location Map

Map 2: Plantable Area Map

Extract 1: Fire Preparedness and Response Plan DBCA Document page 16.

References:

- *Code of Practice for Timber Plantations in Western Australia*
- *Guidelines for Plantation Fire Protection*
- *Local Authority Firebreak Orders*
- *FPC Plantation Procedures, Technical Specifications & Work Instructions*
- *Code of Practice for the use of agricultural and veterinary chemicals in Western Australia*
- *Forest Products Act 2000 (WA)*
- *Carbon Rights Act 2003 (WA)*
- *Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA)*
- *Wildlife Conservation Act 1950 (WA)*
- *Environmental Protection and Biodiversity Conservation Act 1999 (Cwth).*
- *Soil and Land Conservation Act 1945 (WA)*
- *Bush Fires Act 1954 (WA)*
- *Occupational Safety and Health Act 1984 (WA)*
- *Safety and Health Code for Native Forest / Hardwood Logging and Plantation Logging*



Cootamundra -- Water Corporation

1. INTRODUCTION

This property was purchased in 2021 by the Water Corporation (the Corporation) which is proposing to establish approximately 1350ha of pine plantation there for the purpose of timber production and carbon abatement through the planting of trees.

The Forest Products Commission (FPC) will establish and manage the plantation under a timber sharefarming agreement between the FPC and the Corporation.

This document outlines the following in relation to this plantation:

1. Introduction
2. Land information
3. Tree Farm Establishment Plan
4. Tree Farm Tending Plan
5. Fire Management Plan
6. Timber Harvesting Plan (interim)
7. Authorisation

2. LAND INFORMATION

2.1 Area

The planting area totals approximately 1350 hectares, and is situated in the Shire of Boyup Brook. The property is located within the locality of McAlinden, with the various lots comprising the landholding shown on the attached Concept map.

The property is zoned "Rural" under the Shire of Boyup Brook Local Planning Scheme No.2, with the area currently used for bluegum plantation (with the final bluegum plantations being harvested in late 2021/ early 2022), cropping and grazing. It is proposed that the majority of previous bluegum area and suitable existing cleared areas will be established as softwood plantations over the next few years.

The property is located in the Wellington Dam Catchment Area and has an annual average rainfall of approximately 700mm. The property is not in a Public Drinking Water Source Area (PDWSA).

2.2 Locality Map and access roads

A location map is attached. It can be seen from this plan that the main access to the proposed plantation area is via McAlinden Rd

2.3 Natural features

2.3.1 Significant landscapes, streams, rivers, lakes, ponds, swamps, drains etc

A visual assessment of the property has been completed to identify any significant landscape features.

No significant landscape features have been identified for exclusion from planting on the previously cleared land and bluegum plantation areas. The general landscape features of the property will be maintained.

There are several lower-level ephemeral streams and other more significant waterways both with some natural vegetation. A buffer of a minimum of 6 metres has been placed on these waterways in accordance with the Code of Practice for Timber Plantations WA. Actual buffer sizes vary from 10 to 50m according to the prevailing landform and soil type (see attached Plantable Area map). The areas are excluded from the new planting and, if present, the existing vegetation will be allowed to grow on.

On our current assessment there is perhaps 20 to 30 ha of cleared land in these creek lines and small wetlands that is unsuitable for pine establishment. The original vegetation is generally flooded gum (*E.rudis*) with an endemic shrub understory. . The Corporation has a policy of No Net Clearing (where as we clear native vegetation for water related assets we voluntarily replace the cleared area with revegetation elsewhere, preferably in the same biosphere). The unplanted, but already cleared wetlands and creek lines, may be revegetated with endemic species as our vegetation clearing elsewhere in the South West requires us to implement the No Net Clearing Policy.

2.3.2 Principal soil types

The principal soil types consist of duplex soils with sandy clay gravels over medium type clays.

2.3.3 Areas of native vegetation with high or low natural integrity

Forest Type – Jarrah/marri/wandoo/flooded gum

Extent – scattered islands throughout the location with some individual and groups of paddock trees

Condition – The health of the eucalypt upper story vegetation is generally fair, however minimal understorey is present due to previous grazing and some parkland clearing.

Pests or diseases – none other than small infestations of declared weeds the current landowner is controlling, and this work will be continued by the Water Corporation or FPC as necessary.

Proposed future management – Minimal management will take place due to the small size of the remnant islands, grazing of the property will be encouraged in the future to reduce grass fuel loads in unfenced remnant areas. The Water Corporation may review this approach in future years.

2.3.4 Cultural and heritage values

The following actions have been taken to determine the presence of cultural and heritage sites on the property:

- A search for Heritage Council registered sites has been completed.
- Department of Biodiversity, Conservation and Attractions (DBCA) and/or Department of Planning, Lands and Heritage databases have been checked for registered indigenous sites (and two sites identified);
- The current owners have been asked to identify cultural sites known to them.

A registered Indigenous Site is present (partly) on the property which is known as **Collie River Waugal** which runs along a branch of the Collie River. The waterway is excluded from the proposed planting area and thus the area will not be disturbed. A second site is located on the eastern side of the property within an area of remnant vegetation, this area will be field checked for any evidence of significant nature. It is thought that a buffer has been put on a known site which is in remnant vegetation and the buffer extends into the already cleared farmland but this will be clarified before the final planting plan is approved by the Water Corporation.

Following some on-site investigations, just to the west of the registered aboriginal heritage site around the Collie River, FPC staff have identified some potential cultural artefacts on cleared areas previously planted to bluegums (which are now harvested). The Water Corporation is very experienced in investigations of cultural heritage and is arranging an assessment of the area with an accredited consultant and representatives of the Traditional Owners of the land – the area is not planned for pine establishment until 2023, which provides the opportunity to resolve any cultural heritage issues to the satisfaction of all parties.

2.3.5 Threatened and Priority Species and Ecological Communities

Where activities related to this tree farm are likely to directly or indirectly affect threatened and priority species of flora, fauna and ecological communities, the following Acts, Regulations and Plans will be complied with:

- *Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA)*
- *Wildlife Conservation Act 1950 (WA)*
- *Environmental Protection and Biodiversity Conservation Act 1999 (Cwth)*

DBCA's IMB database has been checked. No threatened or priority species have been reported within 1 kilometre of the planting area.

2.4 Improvements

2.4.1 Buildings

Currently there are 2 houses and associated sheds on the locations that will be retained. The Water Corporation intend to lease out the main house and associated sheds into the future. This will keep a presence on the property and provide the opportunity for a business to establish within the Shire, whether it's a new business or the expansion of an existing business. Maintaining a presence on the property has many benefits including initial fire detection, deterrent to illegal entry and maintains/increases population levels within the Shire. With the right tenant, it could also potentially add personnel to the local brigade system, this will be considered by the Water Corporation when selecting a tenant.

A buffer of at least 100m will be left unplanted from the houses and a minimum of 50m from the sheds of the proposed planting area (a house north of McAlinden Road will be demolished as they contain significant quantities of asbestos sheeting). A dilapidated cottage north of and close to McAlinden Road will be retained and fenced pending an assessment of any cultural heritage value.

Various existing water tanks on the property both north and south of McAlinden Road and where relevant the sheds that form their catchment will be maintained to provide a water source for the existing homestead and fire suppression.

2.4.2 Roads, bridges, creek crossings

There is an existing, unsealed road/track system throughout the farm that will allow for adequate access during establishment of the tree farm.

Establishment operations will not involve the requirement to construct or upgrade roads or creek crossings.

New/further road construction is not planned until harvest operations are imminent. Any future road construction within the tree farm areas will be located on the firebreaks as shown on the attached initial plantable area map.

2.4.3 Fences, gates, powerlines, Communication cables and dams

Fences are located both within and surrounding the property. The fences will be maintained with the aim of grazing livestock through the plantation area once trees are of adequate size as well as grazing areas prior to plantation establishment. This will assist in managing grass fuel levels on the property.

Power line easements

There are power lines within the proposed tree farm area. A vegetation exclusion zone consistent with Western Power guidelines will be left unplanted and will also be used as a strategic firebreak.

Communication cables

There are no underground communication cables present within the planting area.

Water Supply Pipes

There are no water supply pipes within the proposed planting area.

2.4.4 Sensitive Areas

Identification of sensitive areas has occurred by completing a reconnaissance inspection, speaking with the previous owner, interpreting aerial photographs and checking relevant databases. Any sensitive areas identified within, adjacent to and along the access ways to proposed tree farm areas require appropriate precautions to protect them. Sensitivities considered in this process include:

- Vineyards
- Orchards
- Apiary sites
- Adjacent National Parks and reserves
- Organic Farms
- Public Drinking Water catchments
- Natural waterways, lakes, swamps etc
- Erosion hazard (E.g. runoff on steep slopes)
- Close Dwellings incl. Neighbours
- School bus stops

No significant sensitive areas of these kinds have been noted through various checks. Neighbouring properties consist of plantation, remnant vegetation, grazing and cropping land and the Goonac Conservation Reserve managed by DBCA

The status of sensitive areas and the requirement to undertake precautionary measures will be reviewed prior to a chemical spraying event, to ensure measures are current and appropriate including the location of neighbouring cereal crops and forested public land.

2.4.5 Wellington Dam Catchment



The property falls within the Wellington Dam Catchment under the South West Regional Water Plan 2010-2030, which aims to protect ground and surface water quality within the catchment. The plantation and its management (as outlined in this document) is not expected to impact water quality in an adverse way.

It is understood the Shire may contact DWER as part of its standard referral process, although pre-consultation with DWER by the applicant has not raised any issues.

3. TREE FARM ESTABLISHMENT PLAN

Tree farms should be located to achieve maximum commercial viability while ensuring that environmental, social, aesthetic and cultural values are not compromised. Appropriate planting design can help to redress environmental problems associated with rising water tables, salinity and erosion.

3.1 Species to be planted and source of stock

The site is to be planted with *Pinus radiata* (Monterey Pine) seedlings sourced from the FPC Manjimup Nursery.

3.2 Areas to be planted, compartment sizes

The Plantable Area map details the size of the compartments. The map and compartment size will be consistent with the *Guidelines for Plantation Fire Protection (FESA 2011)* and the local shire Firebreak Notices. The planting of this plantation will occur in most years between 2022 (initial pine plantings) and 2029 (final pine plantings) –this timing maximises the carbon credits that can be accrued on the land under pine plantation (timing of plantation establishment may change if the relevant carbon farming laws are amended).

3.3 Access roads and firebreaks

Access roads and firebreaks are shown on the plantable area map attached. External firebreaks are 15 metres wide with 6-10-metre-wide internal firebreaks in accordance with the *Guidelines for Plantation Fire Protection (FESA 2011)* and the local shire Firebreak Notices. Firebreak maintenance to local authority standards is the responsibility of the landowner and the plantation manager FPC.

Existing laneways and access tracks in many cases are greater than the required firebreak easements however leaving these existing laneways, fences and access tracks in situ will provide additional grazing opportunities to reduce grass levels throughout the plantation and provide more effective strategic fire breaks.

3.4 Site preparation and planting technique

The site will be rip mounded with minimal disturbance to topsoil to minimise risk of erosion. Some areas where bluegums had previously been grown may be planted straight into the ground on old planting lines.

Trees are to be planted by hand. The stocking rate to be applied is 1250 seedlings per ha.

Note: Seedlings will be supplied in boxes. Boxed seedlings will be stored in a shed or under a tarp when in the field, prior to planting. Planting contractors will carry plants from a central plant dump from within the property to sections within the proposed planting area by 4 x 4 utilities and 4 x 4 All-Terrain Vehicle (ATV) motorbikes.

3.5 Direction of planting lines in relation to contours and natural drainage

The planting direction of trees will depend on slope and existing fence lines. The aim of the planting direction will be to keep planting lines straight but taking into account the slope so as to not cause erosion.

3.6 Description of weed control methods and buffer zones

Depending on the weed species present and those predicted to germinate during the establishment phase, both broad and strip spray applications using a range of pesticides permitted for forestry use may be utilised.

The status of sensitive areas and the requirement to undertake precautionary measures will be reviewed prior to a spray event, to ensure measures are current and appropriate. (refer to the attached plantable area map).

All prescriptions to be applied will adhere to FPC specifications.

All operations will be carried out by licensed operators.

3.7 Control of vermin and declared weeds

The site has been checked for the presence of vermin and declared weeds. Small outbreaks of some declared weeds were noted onsite and are currently controlled by the landowner – FPC will be responsible for weed control in the plantation areas and the Water Corporation in the areas of endemic forest.

Clearing of woody vegetation (native or exotic species)

No areas of remnant vegetation, notifiable under the *Soil and Land Conservation Act 1945* of Western Australia, are to be cleared as part of the proposed planting. The remaining areas of blue gum coppice will be removed prior to pine establishment.

3.9 Management of Logging Residue

There are existing sections of both standing bluegum trees and coppice. These sites will be harvested and treated in preparation to re-establish the areas into softwood plantation.

3.10 Management of agricultural production on the land

The Corporation and the FPC acknowledge that the Shire of Boyup Brook does have concerns about some agricultural land being transferred to other forms of primary production, such as

tree plantations. In this particular case of the 1350 ha (approx.) to be converted to pine plantations about 1000 ha is being converted from blue gum (*E.globulus*) plantations which have occupied parts of the site since the early 2000's – while the blue gum plantations were present the Cootamundra property operated as a small scale sheep grazing enterprise for wool and meat production and the employment on the site consisted of the 2 owners of most of the property (one absentee landowner was the father and father in law of the owners referred to here). These 2 people were augmented by shearing teams as required, with those teams being drawn from across the South West, and various farm maintenance and plantation management resources as required.

Currently (January 2021) the property is subject to a grazing lease with a sheep farmer who has approximately 5,000 sheep on the property (with plans to add another 4,000 sheep) under a two year lease with the Corporation. Apart from providing agricultural production this grazing lease is also an integral part of the fire protection planning for the property. Currently the only area to be eventually excluded from this lease is the 2022 proposed planting areas close to McAlinden Road which will be unavailable for grazing after March 2022. The Corporation's plan, once planning approval is obtained, is to lease the property for grazing in the long term, using areas that are yet to be planted up until site preparation has to commence and areas planted to pine once the trees can withstand sheep grazing (approx. at age 3). The shearing operations for the sheep will also be conducted in the existing sheds on the property to take advantage of existing infrastructure.

In respect to attempting to maintain additional agricultural employment at the site the Corporation intends to test the market for leasing the homestead and the sheds close to it together to provide the opportunity for a business to be developed by people able to live on site. Clearly the market will determine whether this proposal is successful although it appears there is a reasonable market for residential leasing in the area.

In terms of employment connected to pine plantation marketing and harvesting we cannot make firm commitments years in advance. However the FPC understands there is currently a timber harvesting crew based in the Shire of Boyup Brook and it seems logical that such an arrangement would continue because of the area of plantations in this and adjoining Shires. The FPC also uses contractors for annual fire break maintenance and the like which contributes seasonal employment in the area.

Given these comments it appears that overall employment in the Shire of Boyup Brook will be maintained by this proposal compared to the previous land uses and may even increase dependent upon whether the Corporation can attract an agricultural business to lease the existing sheds. The employment generated by the pine plantation will be at least the equal of the previous blue gum plantation land use.

4. TREE FARM TENDING PLAN

4.1 Fertilising schedule

Fertiliser is generally applied to softwood plantations at establishment and after first thinning. Forest Products Commission staff will monitor the progress of the tree farm over its lifetime and will prescribe fertiliser applications if nutrient deficiencies are identified from the analysis of foliar samples.

4.2 Weed management

Weed status will be monitored on a regular basis in the first year after establishment and on an intermittent basis after that.

It is expected that some second year weed control may be necessary as part of the ongoing maintenance to the tree farm area. All prescriptions to be applied will adhere to FPC specifications.

4.3 Monitoring and contingencies for disease and pests

The FPC is committed to minimising the risk of introduction and spread of pests, diseases and weeds.

Plantings will be monitored on a fortnightly basis during the period September through to January during the first year after establishment and 3-6 monthly in subsequent years. Pests will be controlled as and when required using registered APVMA pesticides and licensed operators operating under all specifications as required by relevant authorities and acts.

4.4 Road and break maintenance

Firebreak maintenance to Local Government Authority guidelines is the responsibility of the FPC. The FPC will create and maintain permanent firebreaks throughout the life of the plantation using mechanical and chemical means.

4.5 Grazing strategy

The previous property owners grazed livestock throughout the plantation areas, this relationship of trees and livestock growing together will continue as long as the market demand is there to graze sheep which is currently strong, and no foreseeable change is expected in the future.

Throughout the initial seven years of the pine establishment program, areas awaiting planting will be grazed under lease to support agricultural production and maintain pasture levels as well as mitigate wildfire risk. Following the completion of the entire planting program there will be approximately 600 ha of the property not established to pines for specific reasons (eg granite outcrops; endemic vegetation; stream buffers; power line easements; firebreaks; laneways etc).

Grazing of these areas and throughout the entire plantation area will take place where other sensitivities are not impacted i.e. good condition remnant vegetation which is identified as the internal, already fenced off creek line.

Following establishment with softwood, the site is to be assessed regularly during the 3rd year to determine if the trees are of a height to allow grazing by sheep. Grazing opportunities will be offered to the market. Both FPC and the Water Corporation are strongly committed to graze livestock as soon as trees are robust enough to not be impacted by stock. Grazing will be critical in reducing grass fuel levels and the ongoing protection of the plantation asset and other values in the area.

A good working example of this is located 5 kms east at Muja Plantation where FPC has in place a landowner grazing approximately 4000 sheep on a similar sized property. Sheep numbers do fluctuate throughout the year with the raising and removal of lambs. This relationship between grazing and tree growing is proving very successful with the sheep owner raising sheep for meat while using the tree shelter for very successful lambing results. Grass fuels are also being kept low throughout the treed area and non-planted sections including firebreaks, powerline easements and non-plantation suitable areas i.e. rocky outcrops

4.6 Firebreak Pruning

Strategic pruning of softwood stems will be carried out on trees to ensure safe fire control access for fire suppression efforts throughout the tree farm and to protect adjoining values where identified during the plantation rotation. Standards will be consistent with the *Guidelines for Plantation Fire Protection*

4.7 Thinning schedule

Pine Sawlog

It is expected that the tree farm will be thinned twice before final harvest. The stocking of trees will be reduced by approximately 50% at each thinning. The thinnings will be from below, meaning that the remaining trees will be the best performing and will be spaced such that growth may be maximised. The schedule of operations will depend on the rate of growth achieved and the market opportunities available during the life of the plantation.

Products from harvesting operations will be directed to domestic timber processors. These processors are significant providers of regional employment and assist in giving Western Australia resource security for softwood construction timber.



5. PLANTATION FIRE MANAGEMENT PLAN

The objective of the Fire Management Plan is to establish the infrastructure to prevent fires escaping from or entering tree farms and plantations and for suppression operations in the event of a fire. All fire control activities must adhere to the *Bush Fires Act 1954 (WA)*.

5.1 Landowner property details

Name	Water Corporation
Address	629 Newcastle St, Leederville WA 6007
Phone Number	131385
Location Number (s)	As per attached plans
Species of Trees Planted	<i>Pinus radiata</i>
Total Area Planted	Approx. 1,350ha
Previous Land Use and Condition (i.e. pasture, ex bush, ex plantation)	Primarily bluegum with some cropping and grazing (existing areas of native forest on the property will be maintained)
Adjacent Land Use (i.e. farmland, forest, nature res.)	Farmland including bluegum, pine, grazing and cropping. Goonac Conservation Reserve managed by DBCA

5.2 Property details of neighbouring locations

NAME	ADDRESS	LOCATION NUMBER(S)
Nicholas Bass	660 McAlinden Road, McAlinden 6225	Lot 4487
Naomi Van Der Wielen		Lot 2895 4414
Department of Biodiversity and Conservation	Wittenoom St, Collie	Lot 301, Lot 303, Lot 12, Lot 4089 and Lot 305 Crown Reserves
George Stads		Lot 236
Faed Properties Pty Ltd		Lot 2
Clarke Retreat	174 Chapman Road, McAlinden 6225	Lot 1
Alf Bombara		Lot 2370
Stephen Marshall		Lot 3
Ken Hart		Lot 3759
Dept of Planning, Lands and Heritage	140 William Street Perth 6000 (08) 6551 8002	Lot 5572, Lot 3799
Peter Wooding		Lot 2518
Ammie Wood	1197 McAlinden Road, MCALINDEN 6225	Lot 110
Ron Wood	1223 McAlinden Road, MCALINDEN 6225	Lot 21

5.3 Local fire agencies

AGENCY	ADDRESS	PHONE NUMBER	CONTACT PERSON/ POSITION
FPC Duty Officer		9725 5288	Duty Officer
Shire Office	Boyup Brook	9756 1200	CEO
Chief Fire Control Officer	Boyup Brook	0427 988 705	Tristan Mead
Fire Brigade	McAlinden	0428 672061	Dave Fortune
DBCA District	Wellington	9735 1988	Duty Officer

5.4 Risk of ignition

Potential ignition sources are mainly restricted to lightning strikes, powerlines, adjoining roads, vehicle exhaust sparks and escapes from burning operations on surrounding land.

5.5 Detection of fires

Fires will be detected by established methods including onsite tenants, neighbours, passers-by, DBCA spotter aircraft, remote sensing and the existing bush fire brigade network.

In the event of all fires, notification should be made via the 000 emergency number. This will ensure fire authorities are alerted for an effective coordinated response.

The FPC Duty Officer should be also be notified on 9725 5288.

The FPC operates a 24/7 fire response roster during the fire season with rostered Fire Duty Officers and access to FPC suppression resources to support response agencies and volunteer brigades.

FPC Fire Duty Officers monitor all fires across the Southwest and Great Southern with direct access to the interagency fire surveillance platforms of both DFES and DBCA.

5.6 Location of fire control equipment

The landowner and FPC will provide fire suppression equipment and infrastructure to meet an effective and sustained fire response. FPC can deploy in excess of 6 fast attacks and up to 3 fully equipped heavy duty fire trucks heavy units to this area in a relatively short period of time. These appliances come with fully trained staff and can be deployed by the FPC Duty Officer in liaison with the local CBFCO or Incident Controller. The closest manned FPC units are located in Collie and these are regularly deployed in every day works in the McAlinden area. The Collie office holds 3 light units and 1 fully equipped heavy duty fire truck which are approximately 25 minutes travel from the Cootamundra property. The FPC also has a 2000 litre trailer mounted fire unit located on our Muja Plantation some 5 kms east of the property. The local brigades are aware of this unit and have been encouraged to utilise it where required.

The nearby McAlinden Bush Fire Brigade has access to a Heavy Truck unit and several private fast attacks from neighbouring properties. We are advised that the Shire has 3 graders and 2 loaders, and 4 DFES purpose built firefighting units including 3 trucks and 1 fast attack, all available for use in a fire emergency.

It is acknowledged that many brigade volunteers are not currently trained to respond to fire under forest canopy (whether native or plantation species) and that equipment may not be suited to this purpose however it is expected that these resources may be utilised in preventing potential spread into adjoining pastured land.

The FPC has 3 fire trucks (2700Lt) and over 20 fire suppression units (fast attacks and trailer mounted fire appliances) that are staffed during the fire season within the southwest region. The following table provides a breakdown of the location of FPC fire equipment and fire staff

FPC Office Location	Number of fire ready staff	Fire Equipment
Collie	3	1 Heavy Duty Tanker (3,000 litre) 3 Slip on 400 litre Light Units
Harvey	3	3 Slip on 400 litre light units
Nannup	8	1 Heavy Duty Tanker (3,000 litre) 8 Slip on 400 litre light units
Bunbury	6	3 Slip on 400 litre light units
Manjimup	9	1 Heavy Duty Tanker (3,000 litre) 3 Slip on 400 litre light units
Sandalwood Rd		Trailer mounted fire unit

The FPC also has capacity to access DBCA's fire resources through working arrangements between the two agencies. Page 16 of DBCA's Southwest Region Fire Preparedness and Response Plan is attached as evidence that DBCA will respond to fire on FPC's properties that are within 3 kms of DBCA managed lands (category 2). DBCA has significant resources available from their closest depot in Collie which has 7 heavy duty fire trucks and 5 light units with an approximate travel time of 25 minutes.

The FPC is also an associate member of the Forest Industries Federation Western Australia (FIFWA) and the Plantations Fire Response Group. FIFWA supports the responsible and sustainable management of WA forests and plantations and appreciates the fire threat to their resource and broader community and has recognised the importance of a unified approach in the control and management of wildfire near or within the plantation estate.

The industry manages plantations across many local government areas and the Southwest of WA and work together under a formal agreement to integrate and maintain fire suppression capabilities and critical local knowledge of plantations that fire managers can call upon in a wildfire situation.

The FPC also maintains a Duty Officer roster over the prescribed fire season. The Duty Officer is the principal point of contact for deployed crews in coordinated response with fire authorities. The duty officer will liaise closely with the CBFCA/Incident controller over crew deployment & experience, shift changes and specialised equipment needs.

It should also be noted that whenever a forestry operation takes place on the property by a contractor employed by the FPC, the contractors are required to have firefighting equipment onsite. The amount and type of units varies, depending on the type of operation, time of year

and operational fire risk. Generally, the minimum is one 400 litre unit per machine. During harvest operations, it is commonplace to have 3 light units and a heavy duty onsite.

In addition to the above and for your information, the FPC has capacity to support local Brigades fire response with funds to provide additional equipment that can assist with an initial effective response. The FPC is currently working with Boyup Brook and West Arthur brigades where we are funding a purpose-built fast fill trailer unit that can be utilised by the brigade when it is required. This unit will be capable of fast filling mobile units for a quicker turnaround time.

5.7 Initial response on fires

Upon detection of a fire on or threatening the property the FPC Duty Officer will immediately dispatch rostered and otherwise available suppression resources. These resources will deploy under the direction of the controlling authority with the primary objectives of minimising the potential impact on the plantation and preventing the fire spreading onto adjoining land. The FPC Duty Officer will determine whether to request assistance from DBCA and/or the Plantation Fire Response Group dependent upon the prevailing fire danger, ignition point and initial fire behaviour.

It should be noted that initial rates of spread for fires in plantations can be up to 75% lower than those for open pastures due to the influence of tree canopy on wind speed.

It is noted that many brigade volunteers are not currently trained to respond to fire under forest canopy (whether native or plantation species). Training in plantation firefighting is currently under review and FPC is working with DFES and FIFWA to update training material and make it available to relevant parties.

Initial attack on a fire will be determined by indicative fire behaviour based on weather conditions and fuel structures. It is proposed that the Incident Controller with support from experienced FPC staff, will assess each fire, against the following values in order of priority and initiate a coordinated response with the appropriate fire management structures to achieve these objectives.

1. Human life.
2. Community, State assets & infrastructure,
3. Property rural infrastructure
4. Cost of suppression in relation to values threatened.

With fire behaviour and values in mind response strategies should follow this order of priority as a guide;

1. It is recommended that aerial assistance is requested immediately for fires on or in the immediate vicinity of the property when the prevailing fire danger is Very High or above.

2. Direct attack on head fires by ground and air resources where Head Fire Rate of Spread (HFROS) and safe access allows.
3. Indirect attack on head fire by extinguishing flank fire working towards the head fire;
4. Limit fire spread to pre-determined internal strategic firebreaks.
5. Limit fire spread to compartment breaks;
6. Limit fire spread to property boundary firebreaks where property is block planted;
7. Fall back to neighbouring properties, roads or where fire can be safely extinguished.

5.8 Fire management maps

Fire management maps will be prepared annually to reflect current planting and contact information. Maps will be stored in waterproof tubes at property access points. Copies of Fire Management Maps will also be made available to the Fire Control Officer.

5.9 Firebreaks

External firebreaks are planned to be 15 metres wide and internal breaks 6 or 10 metres wide as shown in the attached Concept Fire Management Map. Firebreaks will be constructed and maintained in accordance with Shire Regulations and the *Guidelines for Plantation Fire Protection*.

Planting compartments have been designed to ensure that no point within the plantation will be more than 300m from an access point (firebreak or other).

Fire breaks will be maintained to be free of flammable material with a minimum 4 m trafficable width and 4.5 m vertical clearance.

The maximum grades on fire break will be no greater than 1 in 8 with the maximum cross fall not exceeding 1 in 33. The slightly undulating nature of the property makes this readily achievable.

There are no 'no through roads' included in the plantation design.

Firebreak maintenance will be completed annually. Treatments may include spraying or grading as well as pruning of edge trees depending upon specific circumstances.

5.10 Method of road, track and firebreak maintenance

The FPC will maintain firebreaks during September/November period each year to ensure they meet appropriate standards leading into each fire season. Where grazing or herbicide applications are ineffective a graded mineral earth break will be programmed to provide safe access around the plantation during summer months and the high fire risk period.

5.11 Water supplies

As part of the infrastructure onsite, water points will be maintained to provide permanent water within a maximum 20 minute turnaround time for fire within the plantation. There are a significant number of existing farm dams on the property to meet this need however as plantation evolves here may be a need to provide additional permanent water storage options strategically throughout the property in liaison with local FCO and landowners.

There are currently 26 earthen dams and 5 tanks ranging from 25,000 litres to 100,000 litres in size on the property that will be maintained as available for use for emergency fire suppression efforts. They are marked on the map and are located adjacent to the existing infrastructure.

5.12 Direction indicators of water points, road signs and other features



Plantation identification signage will be erected at key entry points around the property to facilitate effective incident reporting.

All water sources including dams, tanks suitable for fire suppression use will be signposted with directional markers. A laminated Fire map with these details will be also located at the entrances to the plantation area within the standard industry gate canister (Red).

5.13 Measures to protect infrastructure, powerlines, gas pipelines and Communication Cables

Plantation planning and establishment staff must be familiar with and adhere to where applicable, the following guide from: *Guidelines for Plantation Fire Protection 2011*

Plantation separation distances must reflect potential fire behaviour driven by local variations in topography, aspect and slope. The hazard separation zone:

- Between the plantation and an existing or approved habitable building must be a minimum of 100 metres, unless the building has been constructed to an appropriate higher standard.
- Between the plantation and an existing or approved non-habitable structure (i.e.. sheds and enclosed storage areas) must be minimum of 50 metres.

Representative setbacks are illustrated in the attached Concept Fire Management Map however distances will be confirmed by on ground physical measurement prior to establishment.

40m and 20m easements will be left around power lines in accordance with line ratings as per guidelines.

5.14 Surrounding fuels

Surrounding fire fuels consist of broadacre grazing paddocks, ex bluegum plantations and native vegetation. Fuel reduction burning of the surrounding native vegetation on or adjoining the property may need to be considered with adjacent private landowners into the future. Where



DBCA tenure adjoins the plantation FPC managers will liaise closely to ensure rotational burning programs are maintained to keep fuel levels to an acceptable level.

Most of the native vegetation stands on the property are effectively parkland cleared with a Eucalypt overstory and a mixed grasses understory (i.e.. the endemic understory has been grazed). Water Corporation and FPC will consult regularly about the need for cool prescribed burns in spring in relevant locations to reduce grass fuel loads in these parkland cleared areas. Most of the native vegetation areas are unfenced and stock have access to reduce grass levels.

6. TIMBER HARVESTING PLAN

6.1 Location of harvesting operation

Harvesting operations will take place over the entire area of the plantation but be staggered according to the proposed establishment timelines and the pine sawlog management schedule as set out below. Extraction tracks and cartage routes will be determined prior to harvesting being due, in consultation with the Shire and in accordance with industry standards.

6.2 Timetable (to be updated at time of operations)

Pine Sawlog

First thinnings will occur when the tree farm is approximately 12 years of age, and approximately 20 years for the second thinning. Final harvest should occur around age 30.

6.3 Harvesting operations

Harvesting will generally be carried out using conventional timber harvesting equipment which currently consists of machine harvesters felling the trees, extraction by forwarders and loading on to trucks.

Pine Sawlog

In the first thinning every 5th row (E row) will be removed to allow access for the harvester. Trees will then be selectively removed to achieve the desired stocking. The second thinning will also be a selective process and the final clearfall, will see all the trees being removed.

6.4 Machinery and transport

The length of time until the planned final harvest means that it possible that technological innovations may alter industry standards.

The current standards are as follows;

- Machine harvesters - tracked excavators fitted with a felling/debarking head
- Forwarders - all wheel drive rubber tyred tractor
- Truck configurations - these are variable and are dependent on trafficability and access of sites as well as Local Authority Regulations

6.5 Staging

The property will be established to plantation over several years to allow Water Corporation to claim the maximum amount of carbon credits for the property. This staggered planting program could take up to 8 years. While areas are not established to plantation, they will be offered to interested parties for grazing opportunities.

6.6 External Road Management

Access to the site for both light and heavy vehicles is directly from McAlinden Road which has a bitumen running surface. During the establishment and maintenance stages of the plantation it is unlikely that any damage will occur to the running surface adjacent to the entry points. However, when harvesting takes place with numerous heavy haulage trips, some damage to the running surface may occur adjacent to the entry point. FPC will work with the Shire to remedy such damage including the repairing of any potholing that may occur.

During the establishment phase, it is projected that the site will be visited by 6 semi-trailer trucks for both carrying machinery and for carrying seedlings in each year. During harvesting operations, the site could have up to 9 B-double truck visits per day. Weights for the B-double trucks can reach up to 80 tons.

The FPC will provide notice to the Shire of Boyup Brook at least three months prior to any harvesting commencing.

The FPC would propose to enter into a road use agreement with the Shire including coverage of harvesting traffic management measures and a commitment to rectification of any undue damage to public roads caused by harvesting operations and or movement of machinery associated with the plantation (based on pre and post operation road condition inspections).

6.7 Environmental safeguards

Harvesting operations will comply with all aspects of the *Code of Practice for Timber Plantations in Western Australia*.

Roads will be maintained during harvesting operation to minimize erosion and preserve water quality.

The risk of introducing pests or diseases via harvesting activities will be assessed prior to harvesting and appropriate hygiene measures will be adopted.

6.8 Safety

All associated operations will be as safe as possible and comply with *Occupational Health and Safety* and the *Safety and Health Code for Native Forest/ Hardwood Logging and Plantation Logging* will be observed.

APPENDIX

7. AUTHORISATION

Prepared by:

Matt Jones

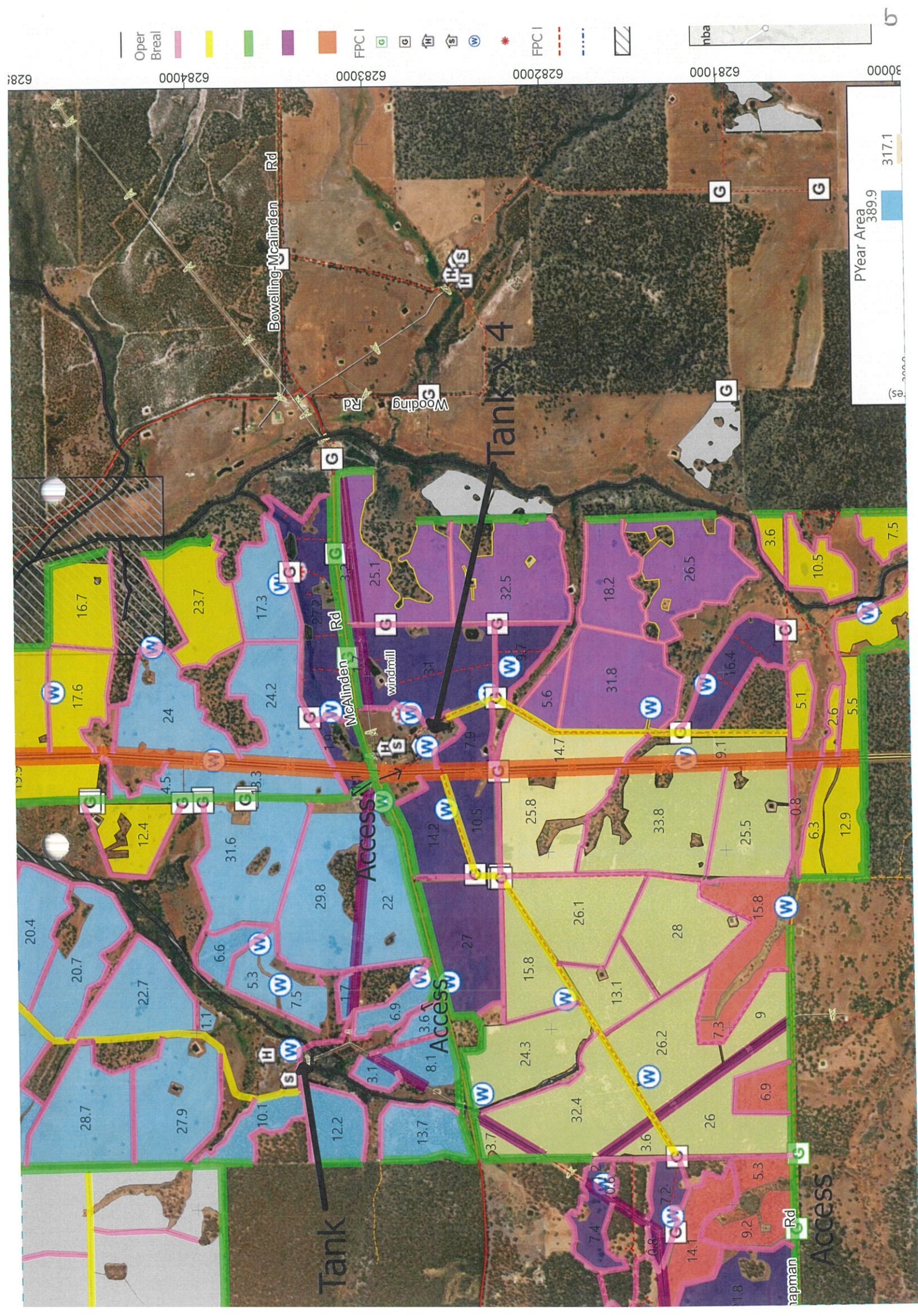
10/3/2022

Approved by Manager, Forest Management:



10/3/2022







Western Australian Carbon Farming and Land Restoration Program



Program Guidelines - Submitting an Expression of Interest

Round 1
July 2021

Contents

Participating in the CF-LRP	4
Glossary	5
Program Overview	7
Objectives	7
Investment principles	7
Purpose of the Program Guidelines	7
Location of projects	7
Co-benefits	8
Funding Structure	9
Future Carbon	9
ACCU Plus	10
Eligible ERF Methods	12
Onus on the proponent	13
Expression of Interest	13
Project Funding	13
Who can apply for funding?	13
Types of co-contributions	14
Activities that can be funded	14
Activities that cannot be funded	15
Funding limits and timeframes	16
Eligibility	16
Proponent and project eligibility criteria	16
Additional eligibility criteria for ACCU Plus A and ACCU Plus B	17
Carbon Service Providers	17
Proponents not eligible for funding	18
Additional proponent information	18
Support for potential proponents	18
Expression of Interest indicative timetable	19
Assessment process and merit criteria	19
Decision-making	20
Appeals	21
Decisions outside the program	21
Conflict of interest	21
Notification of EOI outcomes	21
Funding Agreement	21
Completion of the Funding Agreement	22
Tax information	22
Personal information and disclosure of information	22
Intellectual Property	22
Payment arrangements	23
Monitoring and final reporting	23
Dealing with milestone achievement issues or delays	23
Program evaluation	24
Record keeping	24

Important Information

Round 1 opening date	5 July 2021
Round 1 closing time and date: - ACCU Plus A (Vegetation projects) - Future Carbon	12.00 noon AWST on 20 August 2021
Round 1 closing time and date: - ACCU Plus A (Soil projects) - ACCU Plus B (Soil projects)	12.00 noon AWST on 1 October 2021
Program Policy Provider	Department of Primary Industries and Regional Development
Program Manager	Kerrie House
Contact for Proponent Enquiries	Email: carbonfarming@dpird.wa.gov.au Questions should be sent no later than 10 August 2021
Date guidelines released	28 June 2021
Date guidelines updated	26 July 2021
Type of grant opportunity	Open Competitive

This publication is available at www.agric.wa.gov.au/CF-LRP.

Use of the electronic version of this document will allow the embedded links to be accessed.



Department of Primary Industries and Regional Development
3 Baron-Hay Court South Perth WA 6151
Telephone 1300 374 731 (1300 DPIRD1)
Web www.dprid.wa.gov.au

Acknowledgement of Country

We acknowledge the Traditional Owners of Country throughout Western Australia and their continuing connection to land, sea and community. We pay our respects to them and their cultures and to their elders past, present and emerging.

Important disclaimer

The Chief Executive Officer of the Department of Primary Industries and Regional Development and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

© State of Western Australia 2021

Participating in the CF-LRP

Carbon Farming and Land Restoration Program proponents

If you participate in the Carbon Farming and Land Restoration Program (CF-LRP), you are agreeing to deliver long-term carbon sequestration and priority co-benefits to the Western Australian State Government.

Read through the CF-LRP documents and seek advice

The documents available at www.agric.wa.gov.au/CF-LRP provide information to support you participate. As you develop your project ideas, you should seek independent professional advice (e.g. financial, legal, agronomy) and understand what is needed for the Expression of Interest.

Be familiar with ongoing obligations

Your project has ongoing monitoring and reporting requirements, established in accordance with the Priority Investment Co-benefits Standard. If it is a carbon farming project (ACCU Plus) the Clean Energy Regulator has strict rules governing the establishment and management of such projects.

Submit an Expression of Interest (EOI)

Give yourself plenty of time to finalise your EOI and submit it through the SmartyGrants portal. The funding request, how much carbon the project will sequester and the co-benefits to be delivered will demonstrate value for money. Include your plan to measure, monitor and report on the co-benefits.

Assessment of EOIs

A Technical Assessment Panel (TAP) will review eligible proposals using detailed assessment criteria – feasibility, co-benefits, participant knowledge and capability, innovation, risk, value for money and strategic merit. They will also consider any departures from standard T&Cs. The TAP may negotiate the scope, funding and deliverables to maximise project and program outcomes.

Recommendations are made

The TAP will provide the Investment Advisory Panel (IAP) with a summary of each proposal (including cost and rating against the criteria) for consideration. The IAP makes recommendations to the Rural Business Development Corporation (RBDC).

Funding agreements are approved

The RBDC reviews the IAP recommendations before approving the funding and contractual terms to be offered to the successful proponents. Successful and unsuccessful proponents will be notified.

Consider the offer and the legal terms

Successful proponents will be offered a Funding Agreement, which gives the option (but not the obligation) to undertake the project. Once the agreement is signed you will be legally obligated to complete the project. Funding agreements need to be finalised within 4 weeks of offer.

ACCU Plus projects need to be registered with the Clean Energy Regulator

If your project is in ACCU Plus, it must be registered with the Clean Energy Regulator before funding can be provided by the RBDC. If registration has not been completed it needs to be finalised within 4 months of signing the Funding Agreement. See more information on [how to register a project](#).

Funding Agreement

Payments are outlined in the Funding Agreement schedule - either up front or at agreed milestones.

Ongoing obligations

Manage your project in accordance with the ongoing requirements including monitoring, reporting and auditing.

Glossary

Australian Carbon Credit Units (ACCUs) - a tradeable financial product that represents one tonne of carbon dioxide equivalent abated. The Clean Energy Regulator issues and regulates ACCUs. Bodies purchasing ACCUs to offset their emissions includes the Emissions Reduction Fund acting on behalf of the Australian Government.

AWST - Australian Western Standard Time.

Carbon Service Providers - private businesses, independent of government, who can assist farmers and land managers to participate in the Emissions Reduction Fund.

Clean Energy Regulator - the Australian Government body responsible for administering legislation that will reduce carbon emissions and increase the use of clean energy.

Co-benefits - the additional, positive outcomes of carbon sequestration. The Carbon Farming and Land Restoration Program prioritises environmental, social and economic co-benefits.

DPIRD - Department of Primary Industries and Regional Development.

Emissions Reduction Fund (ERF) – a voluntary scheme managed by the Australian Government. It aims to provide incentives for a range of organisations and individuals to adopt new practices and technologies to reduce their emissions.

Expression of Interest (EOI) - the initial process for proponents to provide information and outline the activities and co-benefits of a proposal to the Carbon Farming and Land Restoration Program. Submitted through the online SmartyGrants portal.

Funding Agreement or Financial Assistance Agreement (FAA) - a legal document that outlines the terms, conditions and obligations of funding, project delivery, accountability for both the Rural Business Development Corporation and the funded business or entity. A Funding Agreement includes any recitals, schedules and annexures, and any amendment to it agreed in writing by the Parties.

Guidelines – the Program Guidelines for participating in the program; this document.

Investment Advisory Panel (IAP) – the panel responsible for considering the merits of project proposals and the level of appropriate funding. The Chair of the IAP will make project and funding recommendations to the Rural Business Development Corporation for their consideration and approval.

Not for Profit - organisations that provide services to the community and do not operate to make a profit, personal gain or other benefit to particular people.

Program Manager - the person responsible for managing the program.

Program Owner - the Director of the operational area responsible for the implementation of the program on behalf of DPIRD.

Project - a set of activities consistent with an approved carbon method and eligibility requirements for registration with the Clean Energy Regulator (CER), or activities that sequester carbon but do not meet CER requirements and meet the requirements for funding under the CF-LRP.

Project Partners - other entities, apart from the primary proponent named in the proposal or in the full EOI.

Program Provider - the policy owner that establishes the program and is ultimately responsible for the underlying policy and program deliverables. DPIRD is the program provider for the CF-LRP.

Proponent - the person or party responsible for carrying out the project. Has the legal right to carry out and control the project. The project proponent can be a single person, multiple people or an organisation. See full explanation of rights and responsibilities as defined by the [Clean Energy Regulator](#).

Rural Business Development Corporation (RBDC) - the corporation established under the *Rural Business Development Corporation Act 2000* (WA) that administers approved assistance schemes on behalf of the WA Government.

Recipient – a proponent who has entered into a Funding Agreement.

SmartyGrants - the grant management software tool used by DPIRD. Used to submit an EOI and all proponent reports relating to the project once funded.

Technical Assessment Panel (TAP) – the group of subject matter experts responsible for assessing the merit of project proposals.

Program Overview

The Western Australian (WA) Carbon Farming and Land Restoration Program (CF-LRP) is a key initiative of the [WA State Climate Policy](#).

The aim of the CF-LRP is to realise the potential of the WA agriculture sector to sequester carbon in the landscape. The program will fund innovative on-ground activities, increase the uptake of carbon farming projects, enhance the long-term productivity of agriculture and deliver environmental, social and economic co-benefits.

The program aligns with the Strategic Intent of the Department of Primary Industries and Regional Development (DPIRD), which is to protect the sustainability of the state's natural resources and accelerate ongoing economic growth, job creation and regional development.

Participants in the CF-LRP will play an integral role in WA's response to climate change and contribute to the State Government's aspiration to achieve net zero emissions by 2050.

Objectives

- Create jobs and economic stimulus
- Enhance and conserve biodiversity and agricultural productivity
- Create Aboriginal economic development and cultural opportunities
- Encourage the supply of carbon credits sourced from WA

Investment principles

- Maintain the integrity of farming communities and the WA agricultural industry
- Improve participant knowledge and capability, particularly small to medium farm enterprises and larger businesses and other organisations yet to engage with carbon markets
- Deliver market diversity, including geographic, project (i.e. carbon sequestration methodologies, type of co-benefits) and participant diversity
- Fund projects that are additional to existing business operations (i.e. would not have occurred without State Government financial support).

Purpose of the Program Guidelines

The purpose of the Program Guidelines is to define:

- the purpose and objectives of the CF-LRP
- the eligibility and assessment criteria
- how EOIs are considered and selected
- how proponents are notified and receive payments
- how projects will be monitored and evaluated
- the responsibilities and expectations of funding recipients

The Program Guidelines provide clarity to all involved, enable suitable governance and help to mitigate risk. The **Frequently Asked Questions** (FAQ) should be read in conjunction with the Guidelines.

Location of projects

To be eligible for consideration for funding by the CF-LRP, projects need to be located in the South West Land Division (also referred to as the Agriculture Region), an area cleared for

agricultural purposes, extending southeast from Northampton to Esperance. Intensive and extensive agricultural and horticultural activities occur in this region.

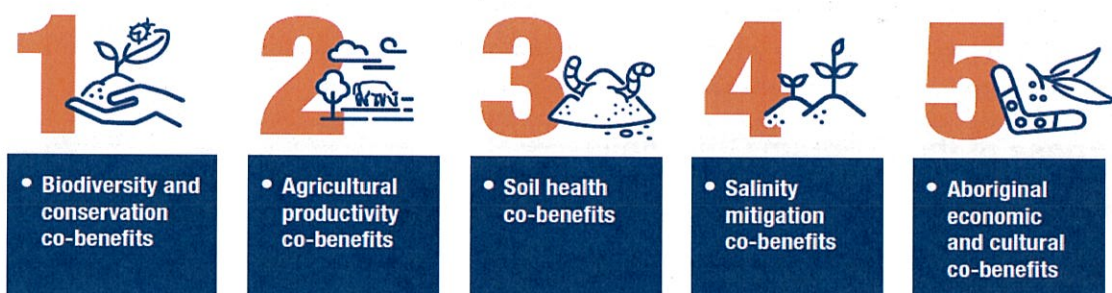


Map 1 – South West Land Division ([DPIRD-008](#))

Co-benefits

Projects funded by the CF-LRP will implement activities that sequester carbon in the landscape and deliver additional, positive outcomes referred to as 'co-benefits'. These co-benefits can increase the perceived and actual value of carbon sequestration.

The CF-LRP priority co-benefits are:



The inclusion of priority co-benefits supports the selection and funding of projects, as these outcomes may not have occurred without CF-LRP investment.

The *Priority Investment Co-benefits Standard* will help determine which co-benefits the project can deliver. It also provides information to guide how they will be measured, monitored and reported on at the agreed milestones.

Independent verification of a project's co-benefits will not be required. The Recipient may choose to use a voluntary verification scheme at their own cost.

Funding Structure

The CF-LRP is a \$15 million program funded by the WA State Government and administered by the Rural Business Development Corporation (RBCD).

Projects considered for funding will demonstrate the capacity to deliver carbon sequestration and co-benefits within an appropriate budget and Funding Agreement period.

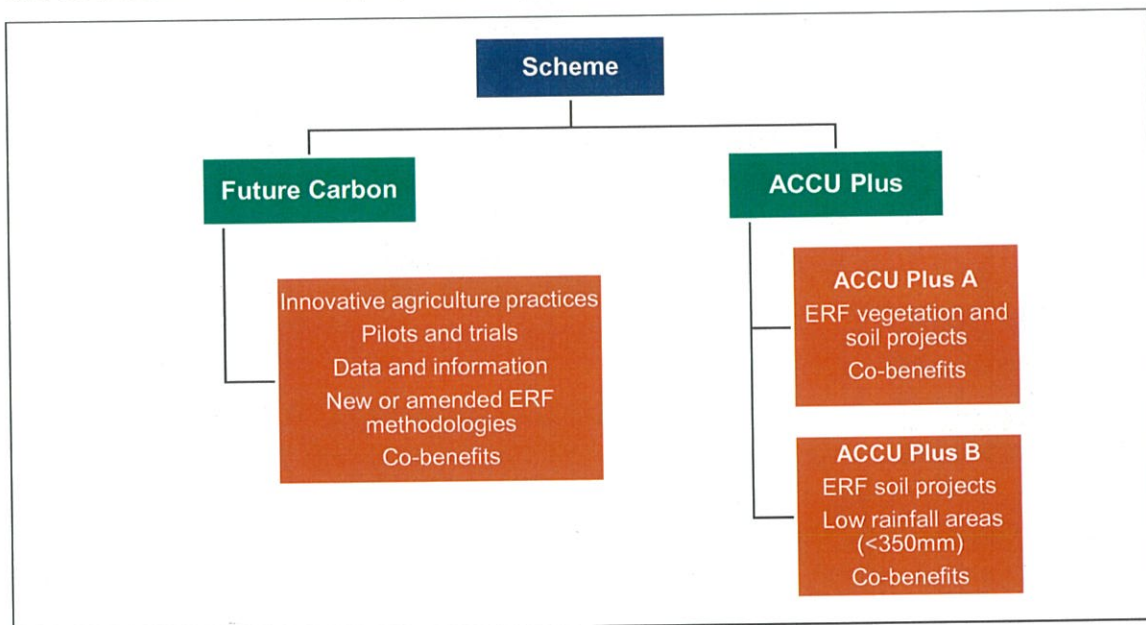


Figure 1 – CF-LRP investment scheme

Future Carbon

Future Carbon provides grants to establish innovative pilot projects, activities and trials that sequester carbon, support the adoption of sustainable agricultural practices, and contribute to a more climate resilient agriculture industry.

Future Carbon projects will use methods not eligible for participation in the Emissions Reduction Fund (ERF), but sequester carbon and deliver CF-LRP priority co-benefits.

Future Carbon will support projects with university or similar institutional support that have the potential to develop new or amended ERF carbon sequestration methods, and those that enhance the understanding of farming activities that sequester carbon.

The sharing of project data and information gained from these projects will contribute to a more climate resilient farming industry and facilitate knowledge sharing and capacity building.

Data and information collected by the project will be provided to DPIRD (open source) to promote greater understanding of carbon sequestration methods.



Recipients will need to complete independent verification of the carbon sequestration baseline measurements (methodology, outcomes and reporting) to allow the collection and analysis of comparable data and satisfy CER requirements for new ERF methods.

All project deliverables and milestones will be agreed to in the Funding Agreement schedule.

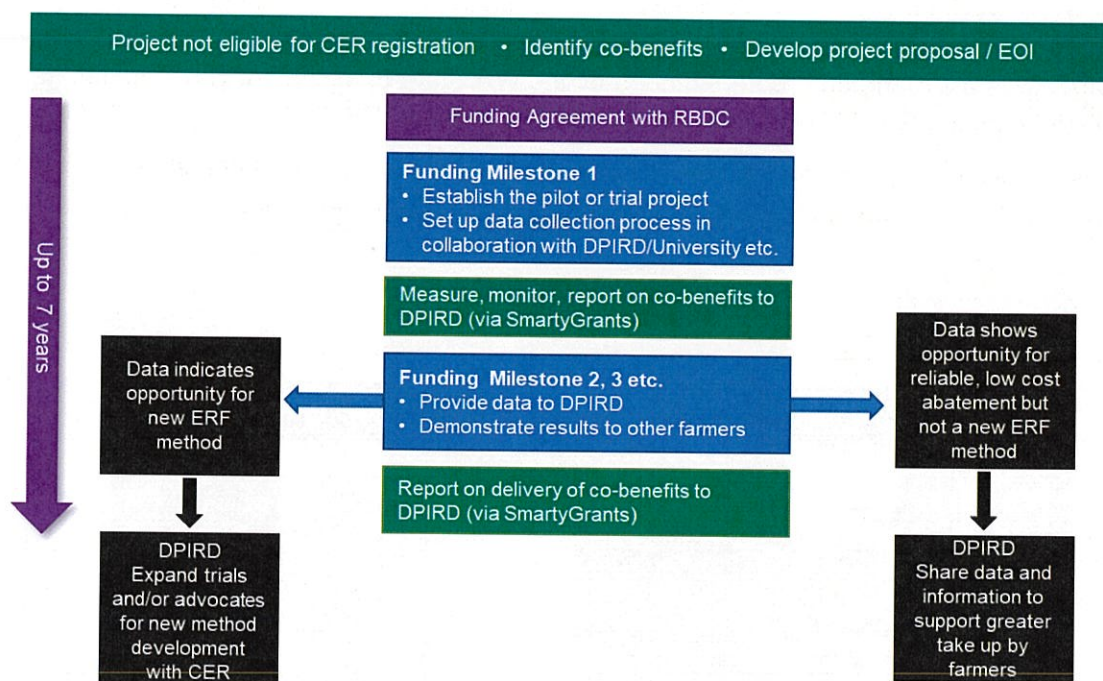


Figure 2 – Future Carbon project process

ACCU Plus

ACCU Plus will stimulate the uptake of ERF carbon farming sequestration projects that generate Australian Carbon Credit Units (ACCUs)¹ under the *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth) (CFI Act). These projects will also deliver priority co-benefits.

Recipients will receive upfront funding to assist in the establishment of new carbon farming projects in return for an agreed number of ACCUs deemed likely to be generated within the term of the Funding Agreement. Excess and future ACCUs are the property of the proponent.



For projects under ACCU Plus, the price of the ACCUs purchased will incorporate the value of the project's co-benefits (i.e. co-benefits will not be separately monetised). The number of ACCUs and the funding request determines the price per ACCU and indicates value for money.

ACCU Plus has two categories:

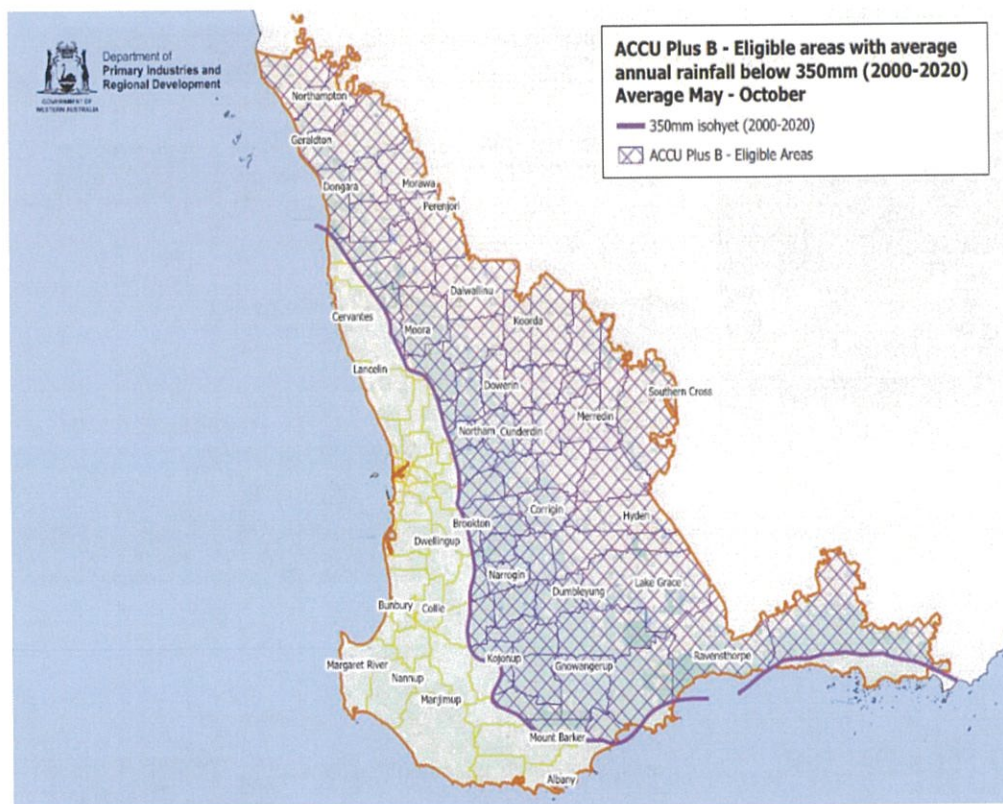
1. ACCU Plus A

ERF registered soil and vegetation projects will deliver an agreed number of ACCUs in exchange for RBDC funding.

2. ACCU Plus B

ERF registered soil carbon projects in an area with an annual average rainfall below 350mm (May – October 2000-2020). Eligible areas are located east or north of the 350mm isohyet (Refer to Map 2).

¹ One ACCU represents one tonne of carbon dioxide equivalent (1tCO₂e)



Map 2 – Eligible areas for ACCU Plus B

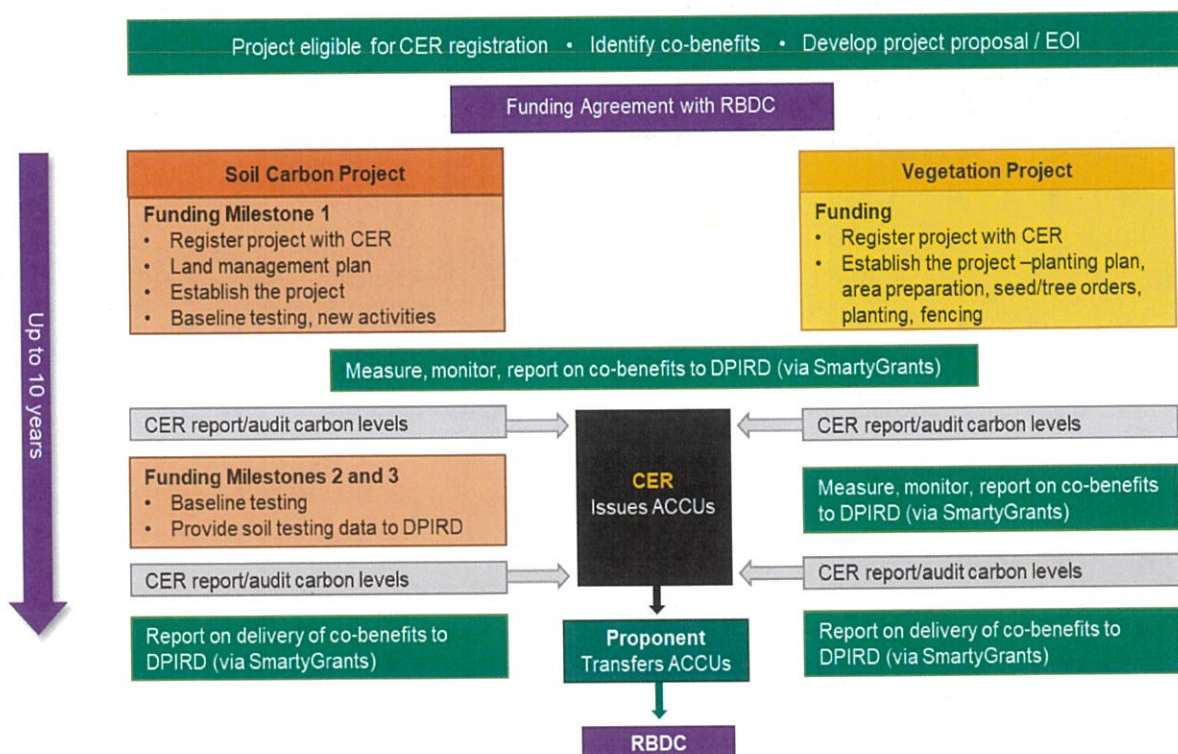


Figure 3 – Comparison of ACCU Plus A and B

ACCU Plus A – Vegetation

Proponent has Funding Agreement with RBDC

Pay upfront project costs in return for a portion of ACCUs created.

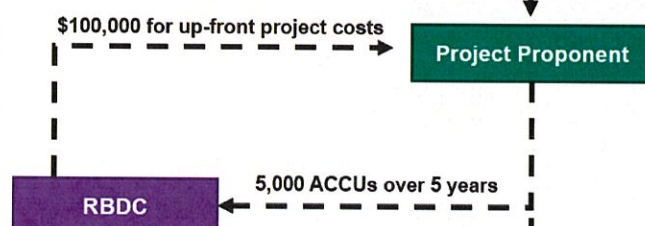
Funding Agreement with RBDC for agreed # ACCUs \$ Funding

e.g. Deliver 5,000 ACCUs within 5 years
\$100,000 funding \$20 per ACCU

Co-benefits – salinity mitigation, habitat restoration, reduced wind erosion, stock shelter, soil health

For illustrative purposes only

Clean Energy Regulator
Issues ACCUs



Excess and future ACCUs

- Hold as an asset or buffer against loss of carbon
- Sell with verified co-benefit to secondary market
- Future certification for sustainable, biodiverse, carbon neutral status
- Offset farm emissions

Figure 4 – Example of an ACCU Plus vegetation project

ACCU Plus B – Soil

Proponent has Funding Agreement with RBDC

Pay upfront project costs in return for a portion of ACCUs created

Funding Agreement with RBDC for agreed # ACCUs \$ Funding

e.g. Deliver 1,500 ACCUs within 6 years
\$60,000 funding \$40 per ACCU

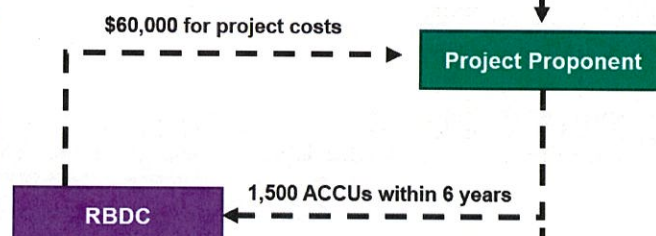
Co-benefits – reduced wind erosion, soil health, improved ag production

Project chosen as it is in a low rainfall priority region, provides important data, influences on-ground change

Support for individual farmers to develop project

For illustrative purposes only

Clean Energy Regulator
Issues ACCUs



Excess and future ACCUs

- Hold as an asset or buffer against loss of carbon
- Sell with verified co-benefit to secondary market
- Future certification for sustainable, biodiverse, carbon neutral status
- Offset farm emissions

Figure 5 – Example of an ACCU Plus soil project

Eligible ERF Methods

Anyone interested in ACCU Plus should understand the ERF method requirements for the project type and choose the permanence period (25 or 100 years) that is right for them. The ERF methods eligible for the CF-LRP are:

Vegetation

- [Measurement based methods for new farm forestry plantations](#)
- [Plantation forestry](#)
- [Reforestation and Afforestation 2.0](#)
- [Reforestation by Environmental or Mallee Plantings - FullCAM - method guide](#)

Soil

- [Estimating sequestration of carbon in soil using default values - method guide](#)
- [Measurement of soil carbon sequestration in agricultural systems - simple method guide](#)

Onus on the proponent

Before applying for funding or making decisions, proponents should:

- 1) ensure they have read and understood the publicly available information and documents on the [CF-LRP webpages](#)
- 2) seek advice from legal, business, taxation and financial advisors (and others as required); and
- 3) ensure they have met or are able to meet any local, state or federal statutory, regulatory or other compliance requirements in relation to the project proposal.

Proponents should note that past project approvals and/or funding received under this or other programs is not an indicator of eligibility or funding.

Expression of Interest

The EOI assessment process is open and competitive.

To be considered, an EOI needs to be submitted using the online SmartyGrants grants management tool. EOIs will not be accepted in any other format.

Please ensure you allow time to submit your EOI, especially if you experience internet connectivity issues, by the following closing dates and times:

- Vegetation projects (*ACCU Plus A*) and Future Carbon close at **12 noon Friday 20 August 2021 (AWST)**.
- Soil projects (*ACCU Plus A and B*) close at **12 noon Friday 1 October 2021 (AWST)**.
- EOIs received after this date and time will not be eligible
- Links to the online SmartyGrants forms are below and on the [CF-LRP webpage](#)

ACCU Plus A and B: <https://agric.smartygrants.com.au/accuplus>

Future Carbon: <https://agric.smartygrants.com.au/futurecarbon>

Project Funding

Who can apply for funding?

Eligible businesses and entities include:

- Commercial farm property owners (including sole traders, trading partnerships, companies and trading trusts).
- Carbon Service Providers undertaking a project under commercial arrangements with the owner/s of a farm property or properties; and
- Not-for-Profit entities undertaking a project under commercial arrangements with the owner/s of a farm property or properties.

Types of co-contributions

Co-contributions are resources (e.g. money, labour, time, machinery, equipment, consumables or materials) donated to the project or provided through other funding sources. Co-contributions usually take the form of cash or 'in-kind'.

Cash co-contribution

Proponents will be required to commit and demonstrate a minimum 30 per cent cash co-contribution to the project over the lifetime of the Funding Agreement (i.e. to apply for funding of \$100,000, the proponent must commit and contribute a minimum of \$30,000 in cash, bringing the total project cash resources to \$130,000).

Proponent cash co-contributions are expected to exceed the minimum requirement. The level of cash will receive a weighting in the EOI assessment process. Not for Profit organisations may be considered on a case-by-case basis.

The EOI is to include any co-contribution commitments from other sources.

In-kind co-contribution

In-kind co-contributions are contributions of goods or services (non-cash). In-kind contributions do not count towards the minimum proponent co-contribution and should be identified separately to the overall project budget to support the assessment of project feasibility.

In-kind contributions include:

- Time spent by volunteers
- Time spent by paid staff where the salary costs of that position are already resourced/funded
- Administrative or overhead costs where they are already resourced/ funded
- Expertise, advice or professional services
- Student research
- Provision or donations of materials such as fencing materials and seedlings
- Donated use of specialised equipment and the services of its operator

Activities that can be funded

A project and its activities funded under the Scheme must be eligible, new (i.e. not yet commenced) and additional (i.e. would not have occurred without State Government financial support).

Funding must be used to pay costs detailed in the project budget and in the Funding Agreement and incurred during the delivery of the project.

Funded activities include:

- Soil testing, preparation and/or amelioration
- Production valuation (verify improvement in pasture, fodder, etc.)
- Site preparation (weed control)
- Plants (tube stock and/or seed)
- Planting of vegetation by machine or hand
- Vegetation protection (fencing, tree guards)
- Machinery hire
- Ecological assessments (value of remnant and revegetation)

- Invasive species (weed and pest) management
- Site surveys
- Planting plans
- Carbon estimation assessment
- Project design and on-ground activities related to project delivery
- Advisers (financial, agricultural, agronomy, ecological, carbon)

When submitting an EOI, proponents must include a site plan demonstrating where project activities will be undertaken. Refer to the Co-benefits Standard for examples of site plans.

Activities that cannot be funded

The following items and activities are ineligible for funding; however, some may be included as in-kind co-contributions:

- Activities which take place outside the South West Land Division (Map 1)
- Carbon emission avoidance activities (i.e. fire, fertiliser or livestock management)
- Activities that do not enable carbon sequestration through vegetation or soil
- Activities that do not deliver one or more priority co-benefits as defined in the Co-benefits Standard
- ACCU Plus activities deemed ineligible by the Clean Energy Regulator
- The use of plant species for revegetation projects that are not endemic to the area
- Subsidy of general ongoing administration of an organisation such as utility charges, rent, rates, etc.
- Expenses to cover salary or on-costs of employees including Western Australian or Australian Government employees
- Activities that are a statutory or regulatory responsibility of the landholder (e.g. standard boundary fences)
- Purchase of information available free of charge
- Development of data and information readily available
- Mine or quarry rehabilitation
- Desktop research, analysis, report writing etc.

Activities ineligible for funding which may be considered as an in-kind co-contribution include:

- Any prior or retroactive projects, activities or events, including planning or site assessment completed prior to funding being awarded (cannot render an ACCU Plus project ineligible under the CER/ERF)
- Expenses already incurred, funded or resourced, including:
 - project coordination (e.g. salaries or salary on-costs)
 - officer 'time'
 - overheads
 - administration expenses
 - advice (financial, agricultural, agronomy, ecological, carbon)
- Purchase, lease or acquisition of land
- Purchase of clothing necessary for personal safety
- Purchase of equipment or materials ordinarily a landholder's responsibility as part of the day-to-day management of a property
- Sitting, board or committee fees or reimbursements
- Volunteer stipends or subsidies

Funding limits and timeframes

No maximum funding per EOI is prescribed in Round 1. A decision about setting a maximum funding amount per proposal in any future funding rounds will be made once all EOIs from the first round have been assessed.

Milestones may be negotiated by the RBDC to maximise the project or program outcomes.

Eligibility

EOIs will be assessed against the eligibility criteria outlined in this document. All relevant eligibility criteria must be met for the EOI to proceed to merit assessment.

It is the proponent's responsibility to ensure the EOI meets all eligibility criteria.

Proponent and project eligibility criteria

To be eligible for funding, a proponent must:

- Be the person or party responsible for carrying out the project with the legal right to carry out and control the project.
- Have an Australian Business Number (ABN)
- Be capable of entering into a legally binding and enforceable financial assistance agreement (Funding Agreement) with the RBDC
- Be undertaking land management activities in the South West Land Division of Western Australia (Map 1)
- Be able to provide a minimum cash contribution of 30 per cent of the total funding request (e.g. \$30 000 co-contribution for every \$100 000 RBDC funding)
- Be registered for the purposes of GST
- Provide a statement of viability from the Chief Financial Officer or accountant and a minimum of two years of audited financial statements
- Willing to undergo criminal and bankruptcy history and other checks of directors/key personnel, as deemed reasonable by DPIRD
- Be a permanent resident of Australia or have operations based in Australia
- Have an account with an Australian financial institution.
- Be one of the following entity types:
 - a company incorporated in Australia
 - a company incorporated by guarantee
 - an incorporated trustee on behalf of a trust
 - an incorporated association
 - a partnership
 - a sole trader
 - a joint (consortia) EOI with a lead organisation
 - a registered charity or not-for-profit organisation
 - a publicly funded research organisation an individual
 - an Aboriginal and/or Torres Strait Islander Corporation registered under the *Corporations (Aboriginal and /or Torres Strait Islander) Act 2006*.

Additional eligibility criteria for ACCU Plus A and ACCU Plus B

To qualify for funding, ACCU Plus carbon farming projects must:

- be registered (but are not yet commenced)
- be in the process of being registered; or
- be eligible for registration

with the Clean Energy Regulator.

The proponent of an ACCU Plus project must appoint the RBDC as an authorised representative on their Australian National Register of Emissions Units (ANREU) account until the contracted number of ACCUs are transferred to the RBDC ANREU account. The RBDC must be nominated as an approver.

A proponent must have, or warrant that it will have in place prior to executing Funding Agreement with the RBDC, all [eligible interest holder consents](#) as required under the *Carbon Credits (Carbon Farming Initiative) Act 2011* (CFI Act).

Projects must be compliant with rule 20A of the CFI Act. This rule requires that a project area, or any part of it, not be used to meet an obligation under a Commonwealth, State or Territory law to offset or compensate for the adverse impact of an action on vegetation e.g. the *Environmental Protection Act 1986* (WA).

If a carbon service provider is involved in the project, the entity or person must be a signatory to the Australian Carbon Industry Code of Conduct (or warrant that it will be prior to executing a Funding Agreement). Refer to <https://carbonmarketinstitute.org/code/>

Additional eligibility criteria for ACCU Plus B

ACCU Plus B soil carbon farming projects must be located in an area with an annual average rainfall below 350mm (May – October, 2000-2020). (Refer to Map 2)

Additional eligibility criteria for Future Carbon

To qualify for funding, the proponent must agree to provide research, data and information generated by the project (e.g. soil carbon data) to DPIRD, as per the Funding Agreement.

Carbon Service Providers

Carbon Service Providers submitting an EOI to ACCU Plus must be a signatory to the Australian Carbon Industry Code of Conduct (or warrant that it will be prior to executing a Funding Agreement). If the Proponent is not a Carbon Service Provider, and elects to engage one, it agrees to only engage a Carbon Service Provider that is a signatory to the Code of Conduct.

Proponents not eligible for funding

Proponents will **not** be eligible for funding if they are:

- A Commonwealth, state, territory or local government agency or body (including government business enterprises)
- An overseas resident/organisation
- An unincorporated association
- An organisation based outside of Australia

Additional proponent information

DPIRD may request proponents supply the following information:

- Identify if the proponent is an individual, group or organisation
- Verify they are 'not for profit' or a registered charity
- If they are a trustee of a trust, a copy of the trust deed that outlines that the trustee has the power to make an EOI and to sign the Funding Agreement with the Western Australian State Government
- Verification of legal status (e.g. registered constituted organisation)
- Evidence of current insurance status (public liability and/or professional indemnity)
- Audited/unaudited statements from previous grants or financial years.

Support for potential proponents

It is important that proponents submit a considered and well-developed EOI that answers all compliance questions, addresses the eligibility and merit criteria and provides the required evidence.

Applicants may be required to provide documentary evidence to support proof of eligibility or other aspects of their EOI.

To enable proponents to provide quality EOIs, DPIRD will provide:

- Detailed information regarding the program online at www.agric.wa.gov.au/CF-LRP
- Other information documents on the webpage above, including grant writing tips
- A guide to using SmartyGrants online at <https://applicanthelp.smartygrants.com.au/help-guide-for-applicants/>
- Support from DPIRD by emailing carbonfarming@dpird.wa.gov.au

The CF-LRP will be promoted using the following approaches:

- Online information and documents at www.agric.wa.gov.au/CF-LRP
- Email to stakeholders registered on Campaign Monitor
- Frequently Asked Questions (FAQs)
- Media releases and advertisements
- Information sessions and workshops

Expression of Interest indicative timetable

The indicative timetable for Round 1 is below.

Milestone	Timetable (Est. 6-7 months)
Funding Round Opens: <ul style="list-style-type: none">- All categories	5 July 2021
Funding Round Closes: <ul style="list-style-type: none">- ACCU Plus A (Vegetation projects)- Future Carbon	20 August 2021
Funding Round Closes: <ul style="list-style-type: none">- ACCU Plus A (Soil projects)- ACCU Plus B (Soil projects)	1 October 2021
Assessment phase	6-8 weeks
IAP finalises recommendations	TBC
RBDC decision	TBC
Funding Agreement negotiations	4 weeks

Assessment process and merit criteria

The DPIRD Secretariat objectively identifies proponent eligibility for funding using the criteria outlined in this document. Ineligible EOIs will not progress.

The detail and supporting evidence provided in the EOI will allow it to be assessed accurately. The evidence should be relative to the complexity of the project and the size of the funding request.

Proponents who have undertaken carbon farming projects, large scale land care projects or are involved in university research will be expected to provide detailed supporting evidence that reflects their experience.

Eligible EOIs will be assessed by a Technical Assessment Panel (TAP) comprised of specialist subject matter experts from DPIRD and other State Government agencies. DPIRD may consult with local governments, the Australian Government and external subject matter experts regarding the project and the information provided.

The eligibility and assessment criteria (Table 1) will guide the assessments.

Table 1 – Assessment Criteria

Criteria	Parameters
1. Carbon benefits	The level of carbon benefits the project will deliver and the proposed value per unit of carbon sequestered
2. Co-benefits	The positive, additional economic, social and/or environmental benefits associated with the project's carbon sequestration. To be measured, monitored and reported on by the proponent at set milestones.
3. Feasibility	The feasibility of the project proposal outcomes, including: <ul style="list-style-type: none"> • Technical feasibility • Proponent capability, including proposed governance arrangements • Capacity to complete monitoring and reporting requirements
4. Innovation and knowledge of methods in WA context	The degree to which the project methodology is novel to Western Australia (WA) and the likelihood of delivering longer-term benefits at scale, including: <ul style="list-style-type: none"> • Use of innovative carbon sequestration methodology • Ability to scale-up the method's use in WA • Potential impact on the WA agriculture industry
5. Participant knowledge and capability	How the project will enhance the knowledge of landholders or priority stakeholders in carbon farming and carbon sequestration
6. Value for money	The financial leveraging ratio, calculated as a percentage of total eligible leveraging costs/funding request Value of proposed outcomes against requested funding Delivery of public vs private co-benefits
7. Strategic merit	Alignment of project to the program's overarching objectives and outcomes, and other value-adds, including: <ul style="list-style-type: none"> • Geographic spread • Market diversity (type of project) • Proponent diversity (large, small, type of entity) • Other government policy objectives
8. Risk	The potential to deliver intended outcomes and avoid perverse outcomes

Decision-making

The TAP will provide the Investment Advisory Panel (IAP) with a ranking of the proposals based on the assessment criteria and funding required.

The IAP will consider the merit of the projects, the achievement of the CF-LRP objectives and investment principles, and the funding request. The IAP may request further negotiation about the scope, funding request, deliverables, and any other aspect of the EOI to assist the final decisions.

The Chair of the IAP will provide recommendations to the RBDC for their consideration.

The RBDC makes the final funding decisions based on the eligibility and assessment criteria and the objectives and principles of the CF-LRP.

As the final decision-maker, the RBDC can ask the Program Manager for additional information, but not for information not included in the selection criteria or in the EOIs.

Appeals

There will not be a formal appeal process. The proponent can submit a new EOI in subsequent rounds of the CF-LRP including any new or additional information (unless the CF-LRP has closed).

Decisions outside the program

A decision to provide funds outside the process and the policies outlined above are not allowable under the arrangements of the CF-LRP.

Conflict of interest

The TAP and IAP Chairs will request members complete a Conflict of Interest form and identify any actual, perceived or potential conflicts of interest. The Chair will determine the appropriate response to manage the conflict of interest.

Membership of the TAP and the IAP will not be disclosed.

Notification of EOI outcomes

Notification of success and unsuccessful EOI will take place within 30 business days of the final decisions being made by the RBDC.

Successful proponents will be informed by:

- Formal notification by email from the Secretariat
- Inclusion in a public media release; and
- An announcement on the DPIRD and/or Government website.

Unsuccessful proponents will be informed in the following manner:

- Formal notification by email from the Secretariat. The email will confirm the decision to decline and the reason(s) for the decision. They will also be advised they can submit a new EOI in subsequent rounds (unless the CF-LRP has closed); and
- Offer of feedback and contact details of person to provide feedback.

Funding Agreement

All Funding Agreements are a maximum of 7 years for Future Carbon and 10 years for ACCU Plus. Upon entering into a Funding Agreement, the proponent will agree on the delivery of carbon sequestration and co-benefits.

All projects must be approved, and Funding Agreement executed prior to the project's commencement.

No retrospective payments will be made.

Milestone payments may be made where applicable and subject to the proponent providing:



- Sufficient information on the agreed milestones to indicate the project is progressing satisfactorily
- A statement of income and expenditure or other evidence of expenditure for the project to the date of the progressive payment claim, signed by the proponent's Chief Financial Officer or accountant.

Successful proponents will be required to enter into a Funding Agreement within 4 weeks of the decision and funded projects are scheduled to start as per the schedule.

A standard Funding Agreement sets out the terms and conditions (T&Cs).

Completion of the Funding Agreement

Arrangements to finalise the Funding Agreement are:

- Email regarding successful EOI including standard Funding Agreement and contracting instructions
- Appointment to discuss agreement terms (Q&A)
- Appointment to negotiate the Project Schedule if required
- Execution of the Funding Agreement and associated forms by the proponent
- All required paperwork lodged with the Secretariat
- Funding Agreement countersigned by the Chair of the RBDC
- Agreement signed by the proponent and returned to the Secretariat within 7 days of the date of issue.

Both parties must sign the contract before the project activity commences and funds are disbursed.

Tax information

Funding provided to Recipients is regarded as payment for a 'supply'. GST-registered Recipients will therefore be liable for GST in connection with the funding.

The funding will be increased by the amount of GST payable. Recipients must provide a tax invoice for the GST inclusive value of the grant.

Proponents are encouraged to seek tax advice on the potential implications of obtaining funding based on individual circumstances.

Personal information and disclosure of information

Proponents are informed that DPIRD is subject to the *Freedom of Information Act 1992* (WA). This provides a general right of access to records held by the State Government agencies and local governments.

Intellectual Property

Provision of data and information regarding carbon sequestration and soil carbon levels will be specified in the Funding Agreement and provided to DPIRD. This will support:

- identification and consideration of new or amended ERF methodologies
- understanding of activities that offset farm emissions
- inform government policy

- development of publication materials for internal and external use, and
- purposes that further knowledge about carbon sequestration.

Any part of an EOI containing any intellectual property rights should be clearly identified by the proponent.

Any intellectual property rights that may exist in an EOI will remain the property of the proponent or the rightful owner of those intellectual property rights.

Payment arrangements

The payment policy for the CF-LRP is as follows:

- Payments are made by the RBDC
- Payments are made in advance or on invoice against milestones
- Payments are made electronically to the nominated supplier bank account.

A Supplier Creation form will need to be completed.

Monitoring and final reporting

The reporting arrangements for the CF-LRP will include progress and final reports which detail the project's performance at relevant milestones e.g. delivery of co-benefits. This may include documenting successes, challenges, lessons learnt and constraints to increase capability and knowledge to grow the WA carbon market.

The Schedule to the Funding Agreement Project identifies specific items to be reported on.

Reports are to be submitted via the SmartyGrants reporting form on or before due dates.

In addition to the required progress reports, project monitoring activities may include:

- Milestone reviews with the CF-LRP Project team via email / phone/ in-person
- Site visits
- Periodic information sessions.

Dealing with milestone achievement issues or delays

Recipients may experience delays or fail to deliver on aspects of their contract for a range of reasons. In such circumstances, the DPIRD Secretariat and RBDC Board requires early and transparent communication from the Recipient as soon as the potential risk of failing to deliver a milestone by the defined date in the Schedule becomes evident.

Adjustments to project scope and/or timing requires a formal written request.

The written request must be endorsed by the project's governance structure, submitted via the relevant SmartyGrants form and be accepted by the Program Manager before the changes are agreed.

In the event of issues requiring more direct intervention, the Program Manager may require one or more of the following approaches:

- Funder/Recipient meeting/s
- Facilitated Funder/Recipient workshop/s
- Project audit/s by independent specialists
- Mediation; and

- Offer/s of skill development training.

Project Acquittal

Financial acquittal and project report requirements will be defined in the Funding Agreement. The final project report will report against the project milestones as defined in the Schedule as well as descriptions of the outcomes delivered, and the lessons learnt from activities both in terms of the achievements delivered and processes employed:

- Periodic progress reports and the final report will be submitted as outlined in the Funding Agreement
- Reports will be provided on reporting and financial acquittal forms via SmartyGrants
- The financial acquittal report will be submitted no later than 12 weeks after the agreed completion date of the project.

Program evaluation

The CF-LRP may be evaluated both in terms of its achievements and implementation processes. Evaluation reports will be provided to those who commission the evaluation and relevant stakeholders identified in the monitoring and evaluation plan. It is envisaged that the evaluation will seek information from key stakeholders including funding recipients. All recipients agree to participate in the CF-LRP evaluation when signing the Funding Agreement.

Record keeping

Records will be managed through the DPIRD Records Management System. All records relating to the CF-LRP will be stored for a period of at least seven (7) years. Recipients also have a responsibility to maintain their own records for up to seven years.

The SmartyGrants system will record proponents and where used track the interactions between the administrator and each unique proponent, assessment and reports. It is recommended that SmartyGrants be used to manage the whole grant process from EOI to Acquittal. Once the CF-LRP has ended the records will be uploaded into the Objective records management system.

Important disclaimer

The Chief Executive Officer of the Department of Primary Industries and Regional Development and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

© State of Western Australia 2021

CODE OF PRACTICE FOR TIMBER PLANTATIONS IN WESTERN AUSTRALIA



FIFWA
FOREST INDUSTRIES FEDERATION (WA) Inc.



**Forest
Products
Commission**
WESTERN AUSTRALIA

First published August 2006
Second Edition 2014

ISBN: 0-9775894-0-4

© 2014 Forest Industries Federation (WA) Inc.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means — electronic, mechanical, photocopying, recording or otherwise — without prior written permission of the Forest Industries Federation (WA) Inc. Enquiries should be made to:

The Executive Director,
Forest Industries Federation (WA) Inc.
Unit 1, 5 Turner Ave
BENTLEY WA 6102
Phone: (08) 9472 3055
Fax: (08) 9472 3155

Whilst every effort has been made to ensure the accuracy of the information contained in this publication, no guarantee can be given that all errors and omissions have been excluded. Forest Industries Federation (WA) Inc. can accept no responsibility for loss occasioned to any person acting or refraining from action as a result of the material in this publication.

Table of Contents

Acknowledgments	v
Glossary of Terms	vii
Acronyms	xiii
Section 1: Scope of the Code of Practice.....	1
1.1 Introduction	1
1.2 Land Ownership and Management Arrangements.....	2
1.3 The Need for a Code of Practice.....	2
1.4 Changes to the Code	3
1.5 Breaches of the Code	4
1.6 Documentation of Operational Procedures	4
Section 2: Plantation Management Principles	5
2.1 National Principles	5
2.1.1 Principles of Environmental Care.....	6
2.1.2 Safety	6
2.1.3 Planning.....	7
2.1.4 Access	7
2.1.5 Establishment and Maintenance	7
2.1.6 Timber Harvesting	7
2.1.7 Forest Protection.....	8
2.1.8 Monitoring and Review	8
2.2 General Principles	8
2.2.1 Economic Benefits of Plantations.....	8
2.2.2 Social Benefits of Plantations.....	9
2.2.3 Environmental Benefits of Plantations	9
2.3 Water Resources and Salinity	9
2.4 Certification.....	9
2.4.1 FSC® Certification	10
2.4.2 AFS Certification.....	10
2.4.3 Product Labelling.....	11
2.5 Significant Values	11
Section 3: Acts, Regulations and Key Reference Documents Relevant to Plantation Management	12
Section 4: Goals and Guidelines for Plantation Management.....	24
4.1 Explanation.....	24
4.2 Management Plans	24
4.3 Plantation Location, Planning and Design	25
4.4 Plantations within Public-drinking-water Source Areas.....	26
4.5 Roads	28
4.5.1 Plantation Roads	28

4.5.2	Public Roads	33
4.6	Silviculture of Plantations	34
4.6.1	Site Assessment	34
4.6.2	Species Selection	35
4.6.3	Site Preparation.....	35
4.6.4	Fertilising.....	36
4.6.5	Weed Control.....	37
4.6.6	Control of Insects.....	38
4.6.7	Control of Vertebrate Pests.....	39
4.6.8	Disease Control and General Plantation Health	40
4.6.9	Thinning and Pruning	40
4.6.10	Coppice Management.....	41
4.7	Timber Harvesting	41
4.7.1	Planning	41
4.7.2	Felling Operations	42
4.7.3	Processing and Extraction.....	42
4.7.4	Log Landings and Processing Sites	43
4.7.5	Haulage.....	43
4.8	Reversion.....	44
4.9	Storage and Handling of Chemicals, Fuels and Oils.....	44
4.10	Incident Management.....	45
4.11	Agriculture Protection and Neighbour Relations	46
4.12	Research and Development	47
4.13	Safety	47
4.14	Competency and Training.....	47
	Section 5: Fire Prevention and Suppression.....	49
5.1	Fire Prevention	49
5.2	Bushfire Suppression	50
	Appendix 1: Protocols for Management Plans.....	51
	Appendix 2: Plantation Timber Haulage Notification to Local Governments and Other Road Managers	55
	Appendix 3: Aerial Spray Application Management Plan	63

Note: All words in this Code that are shown in **bold** are defined in the glossary (p. vii).

Acknowledgments

The Forest Industries Federation (WA) Inc. (FIFWA) acknowledges the assistance of many government and non-government organisations in the production and revision of this Code - particularly Australian Forest Growers (AFG), the Forest Products Commission (FPC), and Commercial Plantations Western Australia (CPWA) - for their time and effort in developing this Code.

Denis Sawers	Albany Plantation Export Company (APEC)
Geoff Rolland	Albany Plantation Forest Company of Australia Pty Ltd (APFL)
Geoff McArthur	Australian Forest Growers (AFG)
Melissa Loud	Forest Industries Federation of WA Inc (FIFWA)
Bob Pearce	Forest Industries Federation of WA Inc (FIFWA)
Ray Fremlin	Forest Products Commission (FPC)
Carol Dymond	Forest Products Commission (FPC)
Alan Hordacre	Great Southern Plantations (GSP)
Gavin Ellis	Great Southern Plantations (GSP)
Mark Giblett	Great Southern Plantations (GSP)
Brett Humble	Hansol PI Pty Ltd
Gary Inions	Hansol PI Pty Ltd
Carl Richardson	Integrated Tree Cropping (ITC)
Julia Levinson	Timber 2020
George Bray	Timbercorp
Tim Browning	Timbercorp
Rick Mitchell	Timbercorp
Leonie Offer	Trees Southwest
Murray Bowles	WA Plantation Resources (WAPRES)
Richard Breidahl	WA Plantation Resources (WAPRES)
Stephen Martyn	WA Plantation Resources (WAPRES)
Geoff Bertolini	Whittakers Timber Products

Specific thanks are extended to the following persons on the Code Review Committee 2013/2014.

Geoff Rolland	Albany Plantation Forest Company of Australia Pty Ltd (APFL)
Carl Richardson	Australian Bluegum Plantations Pty Ltd (ABP)
Charlie Saykao	Australian Bluegum Plantations Pty Ltd (ABP)
Murray Anning	Australian Bluegum Plantations Pty Ltd (ABP)
Leanne Tomlinson	Australian Bluegum Plantations Pty Ltd (ABP)
Steve Pickering	Bunbury Fibre Plantations Pty Ltd
Melissa Haslam	Forest Industries Federation of WA Inc (FIFWA)
Rav Mukushi	Forest Industries Federation of WA Inc (FIFWA)
David Guille	Forest Products Commission (FPC)
Andrew Mill	Forest Products Commission (FPC)
Dale Cameron	PF Olsen (Aus) Pty Ltd
David Bennet	PF Olsen (Aus) Pty Ltd
Davin Gibellini	WA Plantation Resources (WAPRES)
Mark Lush	WA Plantation Resources (WAPRES)

The Code Review Committee as listed above would like to acknowledge the involvement of a wider group of stakeholders including:

Australian Forest Growers	Australian Forest Services	CSIRO
Department of Agriculture and Food	Department of Fire and Emergency Services	Department of Parks and Wildlife
Department of Planning and Infrastructure	Department of Water	Worksafe

and Shires in the South-West and Great Southern regions.

Glossary of Terms

The following definitions apply to the interpretation of terms used in this Code.

Aerial spraying contractor: the aerial spraying contractor engaged by the target **plantation manager** to apply **pesticides** or fertilisers to the target **plantation area** by means of aircraft.

Batter: the inclination or shapes, of a roadside cutting or soil fill, beside a road.

Borrow pit: an excavation, usually close to a road, that is used to provide material to construct a road or approaches to a bridge.

Buffer: a strip of land abutting a feature including (1) the **riparian zone** of a **watercourse**; (2) an area of environmental significance that provides a **buffer zone** between the **plantation** and the feature; or (3) a dwelling, urban or special rural area.

Catchment: a discrete area of land that drains water into a **watercourse** or water body. A water catchment may be a series of sub catchments feeding a major river or a single sub catchment feeding a watercourse.

Certification: voluntary compliance to objectives and processes set by an independent certification body.

Competency: a concept that focuses on what is expected of an employee in the workplace rather than on the learning process. It embodies the ability to transfer and apply skills and knowledge to new situations and environments. Competency will normally be supported by accreditation from a recognised training authority or recognition by an appropriate professional body.

Coppice: the practice of cutting down juvenile stems at ground level that have re-sprouted from the cut stump to: stimulate growth of the remaining stems; achieve a desirable stocking in the stand; and leave a suitable number of dominant stems standing.

Cross slope: the formation of a road surface to provide a slope or camber so that water will drain from it.

Crown (in relation to a road): the highest point of a road that is shaped to allow drainage of water from it.

Declared animal: a declared animal under the *Biosecurity and Agriculture Management Act 2007*.

Declared plant: a declared plant under the *Biosecurity and Agriculture Management Act 2007*.

Disease: any disease or pathogen that attacks an animal or plant and includes any plant, fungus, bacteria, virus, nematode or other biological entity that may be found in or on a plant or animal; and genetic diseases and defects.

Drainage line: depressions that have evidence of periodically flowing water with a defined channel appearing at least intermittently. Visible water flow would be expected after storm events.

Erosion hazard: a circumstance likely to increase the potential for erosion.

Establishment: a period of **plantation** development during which **site preparation**, weed control, planting, fertilising, infill planting and seedling protection takes place. Nominally, this is a period up to two years.

Exotic: introduced, not native to the area.

Extraction track: usually a **temporary track** used to haul wood products out of the **plantation area** to a landing area.

Field specification: the formal field specifications developed following appropriate consultation between the owner or manager of a **sensitive property**, the owner of the **target property** and the **pilot** engaged by the aviation contractor for application of **pesticides** on the target property to ensure protection to a neighbouring sensitive property.

Field supervisor: an employee or representative of the owner of the **target property** who is responsible for supervising and coordinating the aerial spray operation in the field. The field supervisor maintains sole communication with the **pilot** and acts as ground observer during the operation.

Filter strip: a piece of well vegetated land used specifically to filter out sediments and specific chemicals from water before entering a water body.

Fire management plan: specified procedures for preventing and controlling fires in a **plantation**.

Flume: an artificial channel of non-erodible material located below a culvert to prevent erosion of the **batter**.

Harvest residue (logging debris): non-merchantable material that remains on a site after harvest operations.

Hygiene: biosecurity actions that decrease the risk of undesirable **pests**, **diseases** and weeds from being introduced, enabled to survive, spread or intensified.

Incident: An incident involves a significant chemical, oil or fuel spill in a place of environmental sensitivity or where there are implications for human health. An incident may also be a serious accident, an **exotic pest**, **disease** or weed incursion or natural disaster.

Incident management plan: a plan that details the procedure to minimise any detrimental impact of an **incident**.

Incursion response: A measured response to control an invasive introduced plant and/or pest in the interest of maintaining biosecurity.

Integrated pest management: is a broad-based approach that integrates a range of practices for the economic control of **pests**.

Integrated weed management: is a broad-based approach that integrates a range of practices for the economic control of weeds.

Native vegetation: native vegetation with an indigenous understorey.

Native vegetation (clearing of): to clear means to cause or permit the indigenous undergrowth, bush, or trees on the land to be removed or destroyed, or so damaged as to eventually be destroyed, or to cause the removal from the land of vegetation not under cultivation.

Neighbour: a landowner with a common boundary to the **target property** or who is situated adjacent to the target property. This may not necessarily be the owner of a **sensitive property**.

Permanent road: a formed road located within a **plantation** that is required over the life of the plantation.

Pesticide: substances meant for attracting, seducing, destroying or mitigating any pest.

Pests: includes insects, weeds, fungi and animals that are declared or those that may cause damage to **plantations**.

Pilot: the pilot of the aircraft engaged to apply the **pesticides** on behalf of the **aerial spraying contractor**.

Plantation: a stand of trees of ten hectares (or as defined by the Local Government Authority), or larger, that has been established by sowing or planting of either native or **exotic** tree species selected and managed intensively for their commercial and/or environmental benefits. A plantation includes roads, **tracks**, and firebreaks.

Plantation area: that part of a **plantation** that is established to plantation trees.

Plantation establishment: the act of creating a new **plantation** whether it is by the planting of seedlings, clonal material or through the management of coppice shoots originating from a previous crop.

Plantation harvest plan: a plan developed before harvesting a **plantation** detailing the time of harvest, procedure for harvesting (including measures to protect local environmental and social values) and the route by which the products will be transported to a processor

Plantation management activities: all those acts undertaken in order to properly regulate and control the growth and harvesting of the **plantation**.

Plantation management plan: specified details of the development and management of a **plantation**. A plantation management plan may include **plantation maps**, **establishment**, maintenance, and fire management procedures. (Refer to Appendix 1.)

Plantation manager: the person or organisation that has responsibility for the implementation and control of all aspects of **plantation** management.

Plantation map: a map that details location of compartments on a property, cadastral and topographical features, infrastructure, firebreaks, water points, power lines, entry points and permanent access roads and **tracks**

Prescribed pest plant: a pest plant prescribed by Local Government under section 193 of the BAM Act.

Private land: freehold land.

Public drinking water source area (PDWSA): existing and future drinking water sources, identified by proclaiming underground **water pollution** control areas, water reserves or **catchment** areas under the *Country Areas Water Supply Act 1947* or the *Metropolitan Water Supply, Sewerage and Drainage Act 1909*.

Public land: land not granted or contracted to be granted in fee simple.

Public road: a sealed or unsealed trafficable roadway that is the responsibility of a local government or Main Roads Western Australia (MRWA).

Raw water: surface or groundwater to be used as drinking water but which has not received any treatment.

Reversion: the change of **plantation** land back to an alternative use.

Rehabilitation: the restoration and revegetation of a site disturbed by **plantation** activities.

Reservoir: an artificial construction in the landscape for containing water.

Riparian zone: the zone adjacent to or surrounding a water body where **riparian vegetation** and natural ecosystems benefit from and are influenced by the passage and storage of water.

Riparian vegetation (phreatophytic vegetation): **vegetation** growing in a **riparian zone**. This vegetation relies on near-surface groundwater or seasonal inundation to survive.

Road manager: the entity with the legal responsibility for managing the roadway.

Rock spillway: a placement of rocks below a culvert outlet designed to prevent erosion of the **batter**.

Rotation: a planned period of years between the planting of a **plantation** and its harvesting.

Run-off (related to road construction): a short, graded channel angled away from a road designed to divert water from the road into undisturbed ground.

Sensitive property: a property on which there is sensitive environmental value (e.g. a water supply source or conservation-valued water body) or a registered commercial activity that is sensitive to exposure to **pesticides**. For example, commercial marron farms, commercial fish farms, commercial vineyards, commercial strawberry farms or organic farming enterprises.

Significant value: a place of recognised natural, historic, cultural or environmental importance.

Silviculture: the theory and practice of managing **plantations** for wood production.

Site preparation: the preparation of a site in order to establish a **plantation**.

Soil damage: where the 'A' soil horizon (topsoil) is mixed with the 'B' horizon (subsoil usually containing clay) and/or severe compaction occurs. (This normally means compaction that will affect germination or plant growth.)

Soil disturbance: where the 'A' soil horizon (topsoil) is wholly or partly removed.

Specifications: detailed methods that are developed to suit regional requirements and specific conditions to achieve a nominated goal.

Stringers and girders: beams or logs used to form the span of a bridge.

Target property: a property for which an aerial spraying operation has been prescribed with the Aerial Spray Application Management Plan in Appendix 3.

Temporary track or road: a road constructed within the **plantation** specifically for use in a particular operation. The road is usually not formed or surfaced and is closed after the operation is complete.

Tending: the treatment of a **plantation** to maintain, improve and protect the stand.

Thinning: the removal and/or killing of a portion of the trees in a **plantation** to procure a specific product and/or to increase the growth rate on selected retained trees.

Track: a **permanent road** that is not surfaced and that provides access to a **plantation** for **tending**, fire-related activities and extraction.

Vegetated buffer: an area of land adjacent to the planted area of a **plantation** on which native or other **vegetation** is retained for environmental purposes.

Vegetation: plants of any kind.

Watercourse: is defined in the *Rights in Water and Irrigation Act 1914* (as amended) as:

- a) any river, creek, stream or brook in which water flows;
- b) any collection of water (including a **reservoir**) into, through or out of which anything coming within paragraph (a) flows; or
- c) any place where water flows that is prescribed by local by-laws to be a watercourse.

This includes the bed and banks of anything referred to in paragraphs (a), (b) or (c).

Water pollution: when waste products or other substances (e.g. effluent, litter, refuse, sewage or contaminated runoff) change the physical, chemical, biological or thermal properties of the water, adversely affecting water quality, living species and beneficial uses (*National Water Quality Management Strategy 1994*).

Water quality values: are those values that pertain to the purity of the water and which can be adversely affected by environmental contaminants.

Wildlings: wildling is an **Exotic** plant growing outside of the managed area.

Wetland: area of seasonal, intermittent or permanent waterlogged soils or inundated land, whether natural or otherwise, fresh or saline. In the context of the Code of Practice, however, the types of wetlands that require consideration are Ramsar Convention¹, Australian Nature Conservation Agency's Directory of Important Wetlands in Australia², National Estate listings³, Conservation Category or Resource Enhancement⁴ wetlands. The recommended management measures in this Code do not apply to multiple use wetlands. For more information contact the Department of Parks and Wildlife (DPaW) and/or the Department of Water regional office for management categories, boundaries and locations of wetlands.

References

1. UNESCO 1971, Article 1, Part 1, *Convention on Wetlands of International Significance*. Published in Australia, 1976, for Department of Foreign Affairs, Australian Government Publishing Service, Treaty Series 1975, No 48.
2. Usback, S. and James, R. (eds.) 1993, *A Directory of Important Wetlands in Australia*, Australian Nature Conservation Agency, Canberra.
3. Australian Heritage Commission 1990, *Criteria for the Register of the National Estate, Australian Heritage Commission Background Notes*.

4. EPA. 1993. *A Guide to Wetland Management in the Perth and Near Perth Swan Coastal Plain Area*. An Update to EPA Bulletin 374. Perth, Western Australia.

Acronyms

AFG	Australian Forest Growers
AFS	Australian Forestry Standard
CAWS	Country Areas Water Supply
CPWA	Commercial Plantations Western Australia
DAFF	Department of Agriculture, Fisheries and Forestry
DAFWA	Department of Agriculture and Food
DER	Department of Environment Regulation
DFES	Department of Fire and Emergency Services
DoE	Department of Environment
DoH	Department of Health
DoW	Department of Water
DPaW	Department of Parks and Wildlife
EPA	Environmental Protection Authority
FIFWA	Forest Industries Federation (WA)
FPC	Forest Products Commission
FSC®	Forest Stewardship Council®
GSP	Great Southern Plantations
MRWA	Department of Main Roads Western Australia
MWSS&D	Metropolitan Water Supply, Sewerage and Drainage
PDWSAs	Public drinking water source areas
SDAZs	Spray drift awareness zones



Section 1: Scope of the Code of Practice

1.1 Introduction

The **plantation** estate in Western Australia is comprised of over 300,000 hectares of hardwood plantations, primarily Tasmanian blue gum (*Eucalyptus globulus Labill*) located in areas extending from south of Perth to Albany and over 80,000 hectares of *Pinus radiata* and *P. pinaster* plantations located in areas extending from north of Perth to Esperance in the south east. In addition to the large-scale plantations, there are large areas of other commercial tree plantings across all regions of WA, several species of which produce or were planted for non-wood products such as oil, nuts, carbon credits and biomass.

The sector contributes significantly to the economy, the environment and provides social benefits to local communities. The economic benefits include: greater employment opportunities; investment opportunities; and greater diversity in rural economies. Environmental benefits of the sector include: improved land use planning and natural resource management; improvement/management of water quality; removal of carbon dioxide from the atmosphere; managing water and wind erosion; shelter for animals and stock; and the protection and enhancement of biodiversity. Social benefits include: workforce education and training; recreational opportunities; promotes regional population growth; increases employment opportunities; and creates a more diverse and resilient community.

Tree **plantations** in Western Australia have an important role in providing a sustainable resource for economic development, as well as providing a means of improving farmland degraded by salinity and erosion caused by over-clearing.

Plantings commonly referred to as *agroforestry* or *farm forestry* are included within the definition of **plantations** within this Code of Practice for Timber Plantations in Western Australia (Code).

Plantations offer a valuable resource, in addition to wood sourced from native forests, for the supply of forest products to both domestic and international markets.

The purpose of this Code is to provide goals and guidelines to **plantation managers** so that **plantation** operations in Western Australia are conducted in a manner that is in accordance with accepted principles for good plantation management, whilst recognising that a primary aim of plantations is to be economically competitive and sustainable. Principles for good plantation management are described in *Forest Practices Related to Wood Production in Plantations: National Principles (1996)* and *National Water Quality Management Strategy: Policy and Principles (1994)*.

Achieving the goals and observing the guidelines defined in this Code are tasks for all parties associated with a particular **plantation**. These parties may include the owner of the land on which a plantation is growing, the owner of the plantation, the manager of the plantation, and the employees and contractors employed to work in the plantation. Key responsibilities will generally rest with the **plantation manager**.

The function of the Code may be summarised as follows:

- The Code is a guide for the development of **plantation management plans** that form the basis of **plantation management activities** including, **tending**, fire management and harvesting operations.
- The Code does not include detailed prescriptions for works. It is acknowledged that these should generally reflect individual objectives and circumstances. Prescriptions also vary between growers and are contingent on individual **plantation** characteristics, these being the responsibility of individual **plantation managers**.
- The Code applies to both public and private plantation growers on all land tenures.
- The Code has been consolidated by the Forest Industries Federation (WA) FIFWA through extensive consultation and involvement with industry stakeholders. It is based on earlier versions of the Code produced by Australian Forest Growers WA (AFG) and Commercial Plantation WA (CPWA).
- This Code is not a prerequisite of quality or environmental management systems, or the reverse. The Code is designed to complement such systems.
- The term *must* is used to indicate a legislative or regulatory requirement or a core requirement of the Code. The term *should* is used to indicate a desirable but not mandatory procedure.

1.2 Land Ownership and Management Arrangements

There are a number of ownership arrangements within the **plantation** industry in WA. These range from an entity being the landowner, plantation owner and **plantation manager** through to there being a separate entity for each. Often these arrangements are secured by legally binding contracts. An example of such ownership and management arrangements exist between the State agencies - Department Parks and Wildlife (DPaW) and Forest Products Commission (FPC).

The FPC is responsible for the harvest and reestablishment of **plantations** on land managed by DPaW. Management activities in these plantation areas are subject to specific requirements in accordance with the *Conservation and Land Management Act 1984* and *Forest Products Act 2000*, as well as, DPaW policies, guidelines and management plans and inter-agency agreements applicable to these lands.

1.3 The Need for a Code of Practice

The purpose of this Code is to provide goals and guidelines to **plantation managers** so that operations in **plantations** in Western Australia are economically competitive and sustainable and are consistent with other resource management objectives.

The Code also facilitates assessment of State timber **plantation** practices by the Australian Government. This was a prerequisite to ensure that controls on the export of unprocessed wood from public and private plantations are removed.

The Western Australian Planning Commission and local town planning schemes can rely upon the adoption of, and adherence to, this Code by **plantation managers** as an integral part of the planning and land-use process, whether or not formal planning approval is required.

Local governments can rely on adherence to this Code where planning approval for the **establishment** of a **plantation** is not required under a town planning scheme (i.e. is a permitted land use).

Compliance with this Code will provide:

- the **plantation** industry with confidence to secure export opportunities for plantation products without additional licences or approvals;
- **plantation managers** with a single reference document encompassing all relevant rules and regulations relating to **plantations** in Western Australia; however, plantation managers should be aware that this Code might not reflect the current status of regulations as they may change over time;
- increased confidence for investors dealing with **plantation managers**;
- a professional, credible and sustainable industry by establishing the framework within which growers can apply best practice; and
- an environmentally conscious market with sustainably produced wood or wood derived products.

1.4 Changes to the Code

Any changes to this Code must be done through the consultative process established to produce this document.

Formal committee structures established within industry will be the forums for any changes or recommendations to this Code.

In considering changes to the Code during a review process, FIFWA will consider the views of the following interest groups in respect of adopting any updates:

- the **plantation** growers, harvest contractors and processors;
- growers, industry and relevant regional-planning groups;
- relevant government agencies; and
- local government authorities.

This is the first revised edition of the Code since its initial publication in 2006. Changes made to this Code are not intended to be applied retrospectively to existing **plantations**. The Code complements related Acts, regulations, management plans, and other relevant codes of practice, State policies, local government planning schemes, and State and national statements that relate directly or indirectly to plantations.

This revised edition of the Code *does not cover* the management of native forests, plant nurseries or seed orchards.

This Code will take effect from the date of its publication and will be reviewed by FIFWA every five years or as required.

1.5 Breaches of the Code

Any alleged breaches of the Code should, in the first instance, be referred to the plantation's owner or manager for attention. This should be done by the local government authority or government agency with authority under a relevant Act, regulation or planning scheme.

Where a written referral has been made, the **plantation** owner or manager has an obligation under this Code to respond to the notice within a reasonable timeframe.

Alleged breaches that relate to a failure to comply with Federal or State law that are not rectified within a reasonable timeframe following a notice issued by a local government authority or other government agency, should be referred to the relevant government agency for attention.

The **plantation** owner or manager may address an alleged breach that is referred to them by providing the relevant agency with a notice of response and following rectification action, if required, a Certificate of Compliance that the alleged breach has been dealt with and that the development is compliant or has been brought into compliance with the Code.

Compliance **certification** can be obtained by the **plantation** owner or manager providing a certificate from one of the following entities:

1. An internal audit carried out by accredited auditors in response to the alleged breach.
2. An external independent audit carried out to satisfy compliance with relevant Federal or State legislation. For example, the *Management Investment Act 1988*, if applicable.
3. Independent **certification** undertaken by a person who is duly qualified to provide certification of compliance.

Where compliance is subsequently certified by one of the above entities and provided to the relevant government agency, no further action is required.

1.6 Documentation of Operational Procedures

Plantation managers with a resource in excess of 1,500 planted hectares should develop internal written procedures based on the goals and guidelines of this Code.

Section 2: Plantation Management Principles

This Code is guided by various national and general principles. It has been established to provide a framework for a consistent and scientific approach to sustainable management of **plantations**.

2.1 National Principles

The *National Principles in Forest Practices Related to Wood Production in Plantations: National Principles* (March 1996) are reproduced verbatim in the italicised text below.

Wood production is an accepted major commercial use of Australia's forests and is the primary purpose for establishing and managing plantations. In addition, plantations can provide a range of commercial, environmental and aesthetic benefits to the community.

In pursuing a vision of ecologically sustainable management of Australia's forests, Australian Governments, through the National Forest Policy Statement, have enunciated a national goal for plantations:

"to expand Australia's commercial plantations of softwoods and hardwoods so as to provide an additional, economically viable, reliable and high quality wood resource to industry".

In this context, the establishment of plantations for wood production should be determined on the basis of economic viability and international competitiveness, and market forces should determine the extent of resource use and the nature of industry operations. In essence, plantations established for wood production should be treated in the same way as any agricultural productions.

To achieve greater investment in plantations, it will be necessary to ensure that the impediments to plantation development are minimal, that clear and consistent policies for resource development are established across all levels of government and that there is security of access to established resources. Provided that social and environmental objectives are met, Governments will keep regulations to a minimum. For example, the Commonwealth will remove controls over the export of unprocessed public and private plantation wood subject to the application of codes of practice to protect environmental values. Furthermore, it is not intended that controls be imposed on the plantation industry that would not apply to other agricultural activities.

In accordance with the National Forest Policy Statement, the Ministerial Council on Forestry, Fisheries and Aquaculture, representing the States and the Commonwealth's forestry authorities, has prepared this statement of national principles to be applied in the management of plantations.

These principles set the framework for a consistent and scientific basis for sound plantation management to which all States and Territories subscribe. Codes of

practice for plantations, conforming to the national principles, will be developed by the States and Territories taking into account the range of plantation types, conditions and situations applying due to natural and cultural variations. Several States and Territories already have such codes in place.

The principles have been structured into several sections relating to different activities associated with plantation production. The principles apply to both public and private plantations.

2.1.1 Principles of Environmental Care

- a. Native forest should not be cleared for plantation establishment where this would compromise regional conservation and catchment management objectives. In some circumstances it may be appropriate to clear forests that have been severely degraded by impacts such as disease, weed invasion, wind and fire so as to enable rehabilitation through replanting.*
- b. Values such as intensive recreation, high scenic quality, significant geomorphic, biological, or cultural heritage sites, should be recognised in the planning of plantation forest operations.*
- c. Plantation management should comply with State and regional conservation and catchment management objectives, relevant planning schemes and legislation.*
- d. Water quality (physical, chemical, or biological) should be protected by measures controlling change resulting from plantation activities*
- e. Water yield should be managed as required by careful planning of operations.*
- f. Soil stability should be protected by measures, which regulate site disturbance.*
- g. Soil, water catchment, cultural and landscape values should be protected by the careful location, construction, and maintenance of roads and tracks, and regulation of their use.*
- h. Fauna, floristic, and landscape values should be protected by the careful planning of plantation layout establishment operations and the reservation and protection of appropriate areas of native vegetation; such values should be recognised in subsequent plantation management.*
- i. Plantations and adjacent native forests should be protected from the adverse effects of fire and from the introduction and spread of plant, insect and animal pests and plant diseases.*
- j. Operators will be trained in the principles of environmental care.*

2.1.2 Safety

All plantation establishment, management and utilisation activities will be conducted to comply with relevant occupational health and safety legislation and policy. In particular, all operators should be trained to designated standards in the safe and efficient use of equipment and machinery, and be responsible for safe working practices.

2.1.3 Planning

State and Local Governments should, with appropriate public involvement, pursue planning policies that provide secure zoning for commercial planting with the objective that tree planting and subsequent harvesting for commercial wood production should be an 'as of right' use.

State Governments will establish a sound legal basis for separating the forest asset component from the land asset for tree plantings. The Commonwealth Government will consider similar action re taxation, capital valuation etc.

Plantation strategic planning should be developed in conjunction with regional development plans.

The environmental, social and economic effects of all plantation operations envisaged for an area will be considered during the planning process.

Individual plantation operations will be conducted in accordance with relevant codes of practice.

2.1.4 Access

Planning of road systems in plantations should be based on both the economic principle of minimising the combined cost of roading and extraction and on the Principles of Environmental Care.

Road design will be to standards consistent with the purpose for which the road is to be used, and capable of carrying the anticipated traffic with reasonable safety.

Construction and maintenance of roads and associated works will be undertaken in a manner, which will ensure compliance with the Principles of Environmental Care.

Roads will be closed in wet conditions when unacceptable damage would occur or when such other conditions may warrant.

2.1.5 Establishment and Maintenance

Plantation establishment methods should be economically and environmentally appropriate for the particular requirements of the species to be planted and the specific site conditions.

Establishment of plantations may involve introduction of selected species, provenances or populations to increase productivity or value. However management of these plantations should aim to constrain or prevent the introduction of these species into surrounding areas.

Intensive management practices, such as site preparation, fertilising, weed control, pest and disease control and other operations will be carried out in accordance with codes of practice, and consistent with the Principles of Environmental Care.

2.1.6 Timber Harvesting

Timber harvesting will be planned and carried out under codes of practice to meet the Principles of Environmental Care.

The harvesting plan will consider factors such as harvesting unit size, slope and location of harvesting units; design and location of landings and snig tracks; harvesting equipment; areas excluded from logging; and areas specified for protection and reforestation.

Harvesting operations should not be conducted in a manner which compromises the Principles of Environmental Care, or where the safety of workers is at unacceptable risk.

Soil and water values should be protected by progressive rehabilitation and drainage of snig tracks, temporary roads, log dumps and any other earthworks associated with harvesting operations.

2.1.7 Forest Protection

Fire protection planning should be undertaken on a regional basis in co-ordination with relevant land management agencies and with local bush fire control organisations.

Plantation health surveillance should be undertaken on a regular basis.

Where weeds, pests or diseases cause significant damage, decline, or deaths of trees, prompt specialist advice should be sought to address the problem.

Use of chemicals, such as herbicides and pesticides, and other pest control methods in plantation operations will be in accordance with State policies, procedures and approved usage.

2.1.8 Monitoring and Review

Where practicable, plantation operations should be supervised and monitored by qualified persons and be subject to audit.

2.2 General Principles

2.2.1 Economic Benefits of Plantations

The economic viability of **plantations** and the ability to meet national and regional goals for plantation timber products will depend, in part, on the scale of investment in the plantation industry. Likewise, confidence is influenced by return on investment as well as the security of the investment, both of which can affect the scale and viability of the industry.

The development and sustainability of **plantations** is therefore contingent on the inherent economics of the industry. It is influenced by costs of production as well as plantation productivity.

The contribution to employment and the social fabric of local communities is likely to increase as the **plantations** mature and generate further harvesting, processing and value-adding opportunities.

It is therefore important to ensure that this Code maintains a careful balance between economic, environmental and social factors in considering issues relevant to the plantation industry.

2.2.2 Social Benefits of Plantations

Plantations provide many social benefits to the communities that regularly interact with and depend on them, particularly regional communities.

Workforce education and training, recreational activities, conservation activities, regional population growth, employment opportunities and a more diverse and resilient community are some of the common benefits associated with plantations.

2.2.3 Environmental Benefits of Plantations

This Code recognises the benefits that **plantations** provide as a means of reversing land degradation such as salinisation and improving **water quality**.

In particular, it is important to recognise the multiple benefits that plantations can provide in relation to environmental and commercial objectives, through the integration of plantations with other agricultural systems.

2.3 Water Resources and Salinity

There are a variety of land and environmental benefits associated with tree planting that have the potential to contribute to the security and quality of water resources, and in particular, to contribute to the State Government's objectives on salinity management.

The **establishment** of **plantations** on cleared farmland complements the objectives of the State Government's salinity strategy, in particular the promotion of tree planting for the control of groundwater levels.

If located and managed appropriately, **plantations** can benefit water resources by:

- improving **water quality** in **catchments** affected by saline surface water; e.g. the Denmark River catchment;
- addressing dryland salinity and assisting in the control of soil erosion;
- reducing nutrient inputs compared to other crops; and
- reducing applications of **pesticides** in comparison to general agriculture.

2.4 Certification

Certification is essentially concerned with demonstrating conformance to an independent certification body to a set of documented requirements. In this context the requirements deal with the management of forests for the production of forest products both wood and non-wood. Certification is a voluntary choice made by many forest growers driven in the main by the requirements of international markets.

Forest growers in Australia seeking to certify that their forests are well managed are faced with a choice of two primary standards. They can certify their forests using the Forest Stewardship Council® (FSC®) requirements or the Australian Forestry Standard (AFS). The Schemes are not equivalent.

Both schemes require forest growers to demonstrate to independent auditors that they are aware of all relevant laws and that their practices comply with such laws. Forest growers in Western Australia are encouraged to use this Code as a basis for demonstrating to auditors an awareness of relevant laws and the practical application of such laws.

The internationally recognised standard for environmental management is ISO14001. Organisations can seek **certification** against this standard by accredited third party certifiers. However, no product claims can be made on the basis of certification against this standard. Therefore it is not widely used in the forest industry.

2.4.1 FSC® Certification

The FSC® is an organisation with the stated purpose of improving forest management worldwide by establishing consensus on what good forest management means¹. The primary document used to verify if an organisation responsible for forest management is conducting good forest management is the FSC Principles and Criteria², which specifies 10 principles and supporting criteria.

These principles and criteria apply internationally to all types of forests irrespective of factors such as size, forest type, location or ownership arrangements.

2.4.2 AFS Certification

The AFS is a standard accredited by the Standards Accreditation Board of Standards Australia, which specifies nine criteria and supporting requirements³. The AFS is administered by the Australian Forestry Standard Limited (AFSL)⁴ which is a not-for-profit public company registered in July 2003.

Following the development and accreditation of the AFS, AFSL sought and obtained mutual recognition of the AFS from the global Programme for the Endorsement of Forest Conformance schemes (PEFC) to enable the international trade of timber products from AFS certified forests. The PEFC is an international non-profit, non-governmental organisation dedicated to promoting sustainable forest management⁵.

¹History-Forest Stewardship Council, www.fsc.org/history.html

²http://www.fsc.org/fileadmin/web-data/public/document_center/international_FSC_policies/standards/FSC_STD_01_001_V4_0_EN_FSC_Principles_and_Criteria.pdf

³Australian Standard AS4708-2007: The Australian Forestry Standard.

⁴<http://www.forestrystandard.org.au/12about.asp>

⁵<http://www.pefc.org/index.php>

2.4.3 Product Labelling

Both **certification** schemes have rules about how forest products (wood and non-wood) harvested and/or produced in certified forests must be handled after they leave the ownership or control of the forest manager in order to carry a label and make claims about the quality of forest management associated with their production. Processors of forest products who want to apply products labels must also be assessed and certified to ensure the way they handle forest products from certified forests is in compliance with these rules.

Both standards include rules for the sales of:

- wood that is 100% certified,
- a mix of certified wood and non-certified wood that has been assessed through a verification process that the products have been harvested legally and the key principles of conformance to the relevant schemes has been satisfied.

2.5 Significant Values

An integral part of forest management is the managing of any significant environmental and social values that may occur on plantations. Significant values can include threatened animals, plants and ecosystems; Indigenous and European heritage sites; protected water sources; and large landscape level forests.

Initially these values are identified pre establishment using various sources such as the Species Profile and Threats Database; Nature Map; Aboriginal Heritage Inquiry System; and extensive stakeholder input. Similar searches are also undertaken pre harvest. Subsequently management and monitoring regimes are established in consultation with the relevant stakeholders and documented in **plantation** company systems.

Areas of value will be managed and monitored in accordance with individual **plantation** company requirements and protocols. Management may include **pest** and **disease** control programs; **rehabilitation** and restoration projects; fencing and stock exclusion; establishment of **buffer** and exclusion zones; and prescribed burning.

Section 3: Acts, Regulations and Key Reference Documents Relevant to Plantation Management

Legislative controls and guidelines on **plantation management activities** in Western Australia are found in relevant Australian Government and State Acts and regulations along with the associated policies, guidelines and related codes of practice. The following table lists these documents along with their jurisdiction, its relevance to the **plantation** industry and the responsible agency.

On land managed by DPaW, activities in **plantation areas** are subject to specific requirements in accordance with the *Conservation and Land Management Act* and *Forest Products Act* as well as DPaW policies, guidelines and management plans and inter-agency agreements applicable to these lands. These documents are not listed in the following table.

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
1. Aviation				
a	Civil Aviation Regulations (various)	Australian	Limitations on obstacles surrounding airstrips. Limitations on construction of airstrips or runways within five nautical miles of existing aerodromes.	Civil Aviation Authority
2. Biosecurity				
a	<i>Animal Welfare Act 2002</i>	State	Prohibits inhumane and improper treatment of animals. Ensures proper care of animals within generally accepted standards. Reflects the community's expectation that animals will be properly treated.	DAFWA
b	<i>Biosecurity and Agriculture Management Act 2007</i>	State	Prevents the introduction and spread of animal and plant pests and diseases . Manages the usage of chemicals in response to pests and weeds.	DAFWA
c	<i>Exotic Diseases of Animals Act 1993</i>	State	The eradication of major exotic animal diseases .	DAFWA

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
d	National Plant Biosecurity Strategy	Australian	A 10-year vision that aims to maintain and improve biosecurity to help keep Australia free from many pests that affect plant production, the natural environment and economies overseas.	Plant Health Australia
e	<i>Plant Diseases (Regulations) Act 1968</i>	State	Regulates the movement of plant species and timber products into Western Australia from interstate and within the state.	DAFWA
f	<i>Quarantine Act 1908 and the Customs Act 1901</i>	State	Import of plants and forest products into Western Australia from overseas.	Australian Quarantine and Inspection Service
3. Carbon				
a	<i>Carbon Rights Legislation Act 2003</i>	State	Recognises the rights associated with carbon sequestration and claiming of carbon credits.	Department of Environment Regulation (DER)
4. Cultural heritage				
a	<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i>	Australian	Assists in the preservation and protection of places, areas and objects of particular significance to Indigenous Australians.	Department of Environment (DoE)
b	<i>Aboriginal Heritage Act 1972</i>	State	Protects Aboriginal cultural material, Aboriginal sites and declared protected areas.	Department of Indigenous Affairs
c	<i>Australian Heritage Council Act 2003</i>	Australian	Repealed and replaced by the 2003 Act. Assesses whether a place should be included in the National Heritage List or Commonwealth Heritage List or the Register of the National Estate.	Australian Heritage Council
d	<i>Heritage of Western Australia Act 1990</i>	State	Protects places of significant cultural heritage.	Western Australian Heritage Commission

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
5. Environment				
a	<i>Conservation and Land Management Act 1984</i>	State	Sets objectives for plantations on State forest and timber reserves, State managed business undertakings for tree plantations including timber share farming agreements, registration of owner's identification code for private land and log timber intended to be delivered to a sawmill.	DPaW
b	<i>Contaminated Sites Act 2003</i>	State	Aims to protect people's health and save the environment from harm. Contaminated sites must be reported to the DER, investigated and, if necessary, cleaned up.	DER
c	<i>Environmental Protection Act 1986 (EP Act)</i>	State	Environmental impact assessment of any proposals that may significantly affect the environment may be required. Provides environmental protection policies and pollution prevention via various regulatory processes.	DER
d	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>	Australian	Environmental impact assessments for proposals that may significantly affect a matter of national environmental significance, or for Commonwealth proponents or on Commonwealth lands. Defines threatened species and communities and threatening processes.	DoE
e	<i>Environmental Protection Regulations 1987</i>	State	Provide further detail on the administration and enforcement of licences and licence conditions, including monitoring requirements.	DER

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
f	Environment Protection (Clearing of native vegetation) Regulations 2004	State	The <i>Environmental Protection (Clearing of Native Vegetation) Regulations 2004</i> replaces the existing law relating to clearing under the <i>Soil and Land Conservation Act 1945</i> . Examples of clearing that will require a permit are paddock trees greater than a hectare and any native vegetation in public-drinking-water source areas (PDWSAs) .	DER
g	Environment Protection (Unauthorised Discharge) Regulations 2004	State	Makes it an offence to discharge some common substances without approval, including heavy metals, highly acidic or alkaline solutions, dust, hydrocarbons, sediment, sewage, and visible smoke from burning things such as carpet, preserved timber or paint.	DER
h	Intergovernmental Agreement on the Environment 1992	Australian	Aims to facilitate a cooperative national approach to the environment and better environment protection ⁶ .	DoE
i	<i>Soil and Land Conservation Act 1945</i>	State	The conservation of land resources and the mitigation of the effects of salinity, erosion and flooding. Drainage and pumping of water from owner's land to other land or water course.	DAFWA
j	<i>Wildlife Conservation Act 1950</i>	State	Issue of damage licences for management of native fauna damaging plantations , taking of protected flora and fauna, protection of rare flora and fauna. Taking of protected flora for sale from private property requires a commercial producer's licence.	DPaW
6. Fire				

⁶Department of Environment (2010). Intergovernmental Agreement on the Environment, <http://www.environment.gov.au/about/esd/publications/igae/index.html>

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
a	<i>Bush Fires Act 1954</i>	State	Determines plantation design, compartment size and layout, firebreak design and minimum firebreak widths, water point requirements, fire equipment requirements, public utility firebreak easements, burning off, restricted and prohibited burning seasons, permit to set fire to bush, plantation pruning and overhang, planting within town site influence zones, declaration of Total Fire Bans. Stipulates fire fighting equipment requirements. Declaration of Harvest and vehicle movement bans.	DFES
b	Guidelines for Plantation Fire Protection	State	Provides both local government and the plantation industry with a set of best practice fire protection standards for plantations that aim to protect human life and local community interests while minimising fire risk to plantation assets.	DFES
c	Minimum fire season requirements for Working in WA Plantation Forestry	State	Outlines minimum fire season requirements.	FIFWA
7. Harvesting and transport				
a	Safety and Health Code for Native Forest/Hardwood Logging and Plantation Logging	State	Promotes safety and health of people at work in logging operations.	FIFWA

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
b	FIFWA Road Haulage Code of Conduct	State	This code of conduct prevails in every aspect of the haulage of forest and plantation products.	FIFWA
c	<i>Road Traffic Act 1974</i>	State	An <i>Act</i> to make further provision with respect to <i>road traffic</i> and operators' licences, and for connected purposes.	Department of the Premier and Cabinet
8. Hazardous substances and dangerous goods				
a	<i>Dangerous Goods (Transport) Act 1998</i>	State	Ensures the safe transportation of dangerous goods by vehicles, and the licensing of vehicles and people responsible for the transport of dangerous goods.	Department of Mines and Petroleum
9. Land and planning				
a	<i>Dividing Fences Act 1961</i>	State	Adjoining land owners are required to share the cost of erection and maintenance of dividing fences. The Act provides the process for owners of land to serve notices for erection and maintenance of fences, the means of recovery of costs, and the formula for cost sharing between tenants and landlords.	DAFWA
b	<i>Land Drainage Act 1925</i>	State	An Act to provide for the drainage of land, the use of drains and drainage water, and the constitution of drainage districts for other purposes.	Department of Water (DoW)
c	National Forest Policy Statement (1992)	Australian	A policy statement that if signed by a plantation company commits them to the sustainable management of all Australian forests, whether the forest is on public or private land , or reserved or available for production.	DAFWA

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
d	Plantations for Australia – The 2020 Vision (2002)	Australian	A document launched in 1997 with a vision to treble Australia's plantation industry to three million hectares by the year 2020 in an effort to improve regional wealth and international competitiveness.	Australian Government
e	<i>Planning and Development Act 2005</i>	State	Preparation and administration of district planning schemes and scheme amendments to incorporate zones, provisions, policies and strategies relevant to timber plantations . (Schemes and amendments are prepared by local governments, assessed by the Western Australian Planning Commission and approved by the Minister for Planning). Approval for subdivision or for the lease of portions, lots or locations for periods in excess of ten years on freehold land is done by the Commission. Assessment of development applications for plantation establishment (where required under the district planning scheme) is done by the local government.	Western Australian Planning Commission
f	<i>Tree Plantation Agreements Act 2003</i>	Australian	An Act to provide for the making and effect of certain agreements and for the creation and effect of certain interests in land, in relation to tree plantations and related matters.	DAFWA
10. Native Title				
a	<i>Native Title Act 1993</i>	Australian	Defines procedural rights for native title.	Department of Indigenous Affairs
11. OSH				

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
a	<i>Occupational Safety and Health Act 1984 (s19, s23I)</i>	State	Employee and employer obligations and duties relating to safety, training and workplace practices.	Department of Commerce
b	Occupational Safety and Health Regulations 1996	State	Employee and employer obligations and duties relating to specific health and safety.	Department of Commerce
c	<i>Workplace Relations Act 1996</i>	Australian	Provides a minimum set of terms and conditions for employment for example classification of employees, hours and work and rate of pay.	Department of Employment and Workplace Relations
12. Pesticides and spraying				
a	<i>Aerial Spraying Control Act 1966</i>	State	Controls the spraying of agricultural chemicals including the regulation of contractor procedures, spray drift and equipment requirements.	DAFWA
b	<i>Agricultural and Veterinary Chemical Code Act 1994</i>	Australian	Provide for the evaluation, registration and control of agricultural and veterinary chemical products.	Department of Agriculture, Fisheries and Forestry (DAFF)
c	<i>Agricultural and Veterinary Chemicals (Western Australia) Act 1995</i>	State	The Act covers the use and control of pesticides , including the requirement to use pesticides in accordance with label requirements or 'off label' permits for unregistered pesticide .	DAFWA
d	Guide to the Use of Pesticides in Western Australia	State	Sets out the legislative requirements for the safe and effective use of pesticides in WA, and the policies and practical guidance on how to comply with the legislation	DoH

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
e	<i>Health Act 1911</i>	State	Use and application of pesticides in plantations , from the ground or from the air, licensing of pesticide operators, transport and storage of pesticides . Restrictions on pesticide use and application techniques within PDWSAs .	DoH
f	Health (Pesticides) Regulations	State	Controls the licensing of commercial pesticide firms and pesticide operations.	DoH
g	<i>Poisons Act 1964</i>	State	An Act to regulate and control the possession, sale and use of poisons including the application and management of pesticides .	DoH
h	Safe use and management of 1080 - Code of Practice	State	Sets out the rules and guidelines for the safe management and use of 1080 products.	DAFWA
i	Statewide Policy No 2. - Pesticide use in Public Drinking Water Source Areas	State	Policy for the protection of water sources used for public drinking supply.	DoW
13. Plantations				
a	Forest Practices Related to Wood Production in Plantation: National Principles (1996)	Australian	Guidelines and practices for sustainable management of plantations .	DAFF
14. Stock				
a	<i>Local Government Act 1995</i>	State	Subdivision 4 of the Act provides for the impoundment of straying stock. Regulations have been made under this section, and local governments have the power under the Act to make local laws regarding straying stock.	Department of Local Government and Communities

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
b	<i>Stock Diseases Act</i>	State	The prevention, control and eradication of animal diseases not included in the <i>Exotic Diseases of Animals Act 1993</i> .	DAFWA
15. Training				
a	National Competency Standards, Policy and Guidelines 1992	Australian	Provides guidance on the role, development, endorsement, maintenance and review of national competency standards.	National Training Board (Australia)
16. Trading and Investment				
a	<i>Management Investments Act 1998</i>	Australian	Sets out arrangements for the registration and ongoing regulation of managed investment schemes.	Australian Securities and Investments Commission
b	<i>Trade Practices Act 1974</i>	Australian	Promotes competition and fair trading and provides for consumer protection.	Australian Competition and Consumer Commission
17. Water				
a	<i>Country Areas Water Supply (CAWS) Act 1947</i>	State	<p>This Act covers the protection of water quality for country surface water and groundwater sources used for public drinking water supply. The regulations and by-laws only relate to proclaimed catchment areas or water reserves. The by-laws of the Act give the department, or its delegated representative, the power to take steps to protect raw drinking water sources and to control activities within catchment areas.</p> <p>Regulations require licences for the removal of native vegetation within proclaimed clearing control areas unless a valid permit issued under the EP Act applies</p>	DoW

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
b	<i>Metropolitan Water Supply, Sewerage and Drainage Act 1909 (MWSS&D)</i>	State	and the area has not previously been compensated. The Act covers the protection of water quality for Perth metropolitan surface water and groundwater sources used for public drinking water supply. The regulations and by-laws only relate to proclaimed underground water-pollution control areas, public drinking water source areas or water reserves. The by-laws of this Act give the DPaW, or its delegated representative, the power to take steps to protect raw water sources and to regulate activities within catchment areas.	DoW
c	National Water Quality Management Strategy	Australian	Aims to protect the nation's water resources, by improving water quality while supporting the businesses, industry, environment and communities that depend on water for their continued development. ⁷	DoE
d	Public Service Circular 88 - Use of Herbicides in Catchment Areas	State	Protects surface and ground water sources that are used as sources of water for human consumption from contamination by herbicides.	DoH

⁷Department of Environment (2013). National Water Quality Management Strategy. Available online <http://www.environment.gov.au/topics/water/water-quality/national-water-quality-management-strategy> (Accessed 16 December 2013)

Ref.	Title of Document	Government jurisdiction	Document's relevance to plantations	Responsible Agency
e	<i>Rights in Water and Irrigation Act 1914</i>	State	Covers riparian rights, irrigation districts management, the licensing of bores for aquifers and abstraction of water from rivers and watercourses and controls on certain surface waters. Licenses are only required in proclaimed areas. In addition, all artesian wells need to be licensed. Regulates the modification of naturally flowing watercourse by way of dams, weirs or reservoirs and to protect natural watercourses from pollution.	DoW
f	<i>Swan and Canning Rivers Management Act 2006</i>	State	Protection and management of rivers.	Swan River Trust
g	Vegetation buffers to sensitive water resources	State	Protecting sensitive water resources by establishing and maintaining vegetation buffers .	DoW
h	<i>Waterways Conservation Act 1976</i>	State	Under the provisions of this Act, the DoW has a waterways management and protection function and associated powers in respect of designated waterways: Peel-Harvey Estuaries; Leschenault Estuary and associated rivers; Albany Harbour and associated rivers; Wilson Inlet and associated rivers; and the Avon River.	DoW

Section 4: Goals and Guidelines for Plantation Management

4.1 Explanation

The following terms are used in this section:

- *Goal*: a desired outcome (economic, social or environmental).
- *Guideline*: a recommended approach for achieving goals. Guidelines can be either quantitative or qualitative.
- *Specifications*: detailed methods that are developed to suit regional requirements and specific conditions to achieve a nominated goal.

This Code provides goals and guidelines to follow when preparing **specifications for establishment, silviculture management, harvesting and reversion of plantations**.

4.2 Management Plans

Goal

Establish and manage **plantations** according to management plans.

Guidelines

- A **plantation** must be managed according to a **management plan**. A protocol is outlined in Appendix 1. As applicable, specific requirements of land owners/land managers and plantation owners should be taken into account in preparation and amendment of such plans.
- **Plantation managers** with **plantations** spread over a number of sites may develop generic plans that apply to a number of properties or areas. Where this occurs, the sites to which the generic plan applies must be clearly identified along with appropriate site-related details including the provision of **plantation maps** for the plantations.
- **Plantation maps** are dynamic and may be reviewed and updated from time to time to reflect changes in the **plantation**.
- **Plantation managers** may require town-planning approval for **plantations** before settlement and before specific management planning and mapping has been completed. This situation could arise where the land in question is in a special control area and/or is listed as a discretionary use under the relevant local planning scheme. In such cases, the plantation manager may submit a draft **plantation management plan** and **plantation map** for the purposes of gaining the necessary planning approvals.
- Management of a **plantation** over time may vary from that specified in the original **plantation management plan** to account for new techniques and procedures as well as to respond to new threats to the plantation. Changes to the plantation management plan that have the potential to impact on **water quality** in **PWDSAs** should be discussed with the regional office of the DoW (or its delegated agent).

- In a land use zone where approval to establish a **plantation** is not necessary, the **plantation manager** should submit a **plantation management plan** and **plantation map** to the relevant local government for record purposes.

4.3 Plantation Location, Planning and Design

Goals

- Locate and design **plantations** in order to achieve desired commercial, social and environmental outcomes.
- Locate and design **plantations**, where possible, to meet desirable environmental outcomes including **water quality** maintenance and landscape protection.
- Ensure that State and local government planning requirements and associated legislation, and any specific requirements of land owners/land managers/**plantation** owners for **plantation establishment** are satisfied.

Guidelines

Plantation establishment can only be considered for cleared agricultural land or land previously growing a **plantation**. Clearing of **native vegetation** for plantation establishment is contrary to the policy of the Western Australian government. The location of plantations must consider the following constraints:

- A thorough investigation of site attributes must be undertaken to ensure that the desired returns for the species and products being proposed will be realised (see *Section 4.6*). This may include computer generated stand growth and financial models.
- An assessment of infrastructure and logistical requirements to service the enterprise should be undertaken, including an accessible workforce for the supply of silvicultural services.
- Sites of cultural significance – in accordance with the latest relevant legislation as per *Section 3: 4a, 4b, 4c and 4d*.
- The presence of priority and threatened flora and fauna species together with priority and threatened ecological communities – in accordance with the latest relevant legislation as per *Section 3:5d and 5i*.
- The proximity to airports or airstrips – in accordance with the latest relevant legislation as per *Section 3:1a*.
- State and local government planning requirements – in accordance with the latest relevant legislation as per *Section 3:9e and 9f*.

Once the constraints of a **plantation** location have been determined and considered, the plantation design must consider the following aspects:

- **Plantations** must be designed in accordance with the latest relevant legislation as per *Section 3:6a, 6b and 6c*.

- **Plantations** must be designed in accordance with the road design principles (see *Section 4.5*).
- **Water quality** should be protected by careful planning and control of the location and timing of machine operations during **site preparation** and harvesting. This should be done with the aim of not permitting disturbance of the **watercourse** or **wetland** and minimising the chance of soil or chemicals being transported to the watercourse or wetland. Non planted **buffers** of at least six meters should be maintained from the edge of a watercourse.
- **Plantations** should not be established on slopes in excess of one in three. Slope limits of one in seven should be applied in areas where the **erosion hazard** is high. Where existing plantations occur on steep slopes, they may be harvested and replanted, provided that soil stability is not compromised. Note: the **establishment** of plantations may be considered on steep slopes that are already cleared and subject to erosion since this may actually improve soil stability.
- The taking or diversion of surface water and abstraction of groundwater for commercial irrigation purposes from areas that are proclaimed in accordance with the latest relevant legislation as per *Section 3: 17e* is subject to licensing by the DoW.
- Existing **native vegetation** adjacent to **watercourses**, **wetlands** and **reservoirs** should be protected from degradation.

4.4 Plantations within Public-drinking-water Source Areas

Goals

- No detrimental impact on **raw water** quality because of activities in **plantations** situated in **PDWSAs**.
- **Water quality values** to be protected within water resources including groundwater, **watercourses**, springs, **wetlands** and **reservoirs**. The key water quality issues relevant to **plantation management activities** are pathogens, turbidity and erosion, nutrient **run-off** from fertilisers and chemical spills.

Guidelines

- The quality of public drinking water sources is protected by proclaiming underground **water pollution** control areas, **catchment** areas or water reserves in accordance with the latest relevant legislation as per *Section 3:17b*.
- The regulations in accordance with the latest relevant legislation as per *Section 3:5c* and by-laws under the *MWSS&D* and the *CAWS Acts* enable the DoW to control potentially polluting activities, to regulate land use, inspect premises and to take steps to prevent or clean up pollution in **PDWSAs**.

- To protect the quality of **PDWSAs**, the DoW has defined three levels of priority classification in the water-quality protection note 'Land Use Compatibility in Public Drinking Water Source Areas'. This note provides information on land use and activities that may affect the quality of the State's water resources.
- The DoW recognises that many **plantations** were established in **PDWSAs** before the current strategy to protect water resources was implemented. The **plantation manager** will negotiate with the Department (on a case-by-case basis and including on-site inspections as necessary) to develop appropriate management practices to minimise the impact on water resources, while taking into consideration the primary commercial objectives of the plantations.
- In **PDWSAs**, the preparation of **management plans** for new or replacement **plantations** should be developed in consultation with the DoW or its delegated representative to set out measures for protecting **water quality values** as well as ensuring commercial viability.
- In **PDWSAs**, **vegetated** (e.g. pasture) **buffer** zones adjacent to **watercourses** and **reservoirs** are necessary to maintain water quality. Refer to the DoW's water quality protection note: *Vegetation Buffers to Sensitive Environments*.
- The application of chemicals, including fertiliser and **pesticides**, in **PDWSAs** must be in accordance with DoH, DoW, and Environmental Protection Authority (EPA) policies and guidelines. The interpretation of policies and guidelines should be achieved by consultation between the relevant government agency and the **plantation manager**.
- If a **plantation** within a **PDWSA** is to be harvested and not re-established, a plan addressing subsequent land use activities (where the development of such activities is the responsibility of the plantation grower) should be developed in consultation with the DoW. Whilst **reversion** to the pre-plantation land use is acceptable, any changes to the use of the land before the **establishment** of the plantation should be compatible with water source objectives for that **catchment**.
- Harvesting of **plantations** established for commercial reasons on land that was previously cleared pasture will not be restricted, either within or outside the influence of a **PDWSA**, provided that adequate measures to protect water quality are incorporated in the **plantation harvest plan** and on-ground operations. **Thinning** to protect the water yield may be a part of the **plantation management plan** for plantations within a **PDWSA**.

4.5 Roads

4.5.1 Plantation Roads

4.5.1.1 General

Goal

Ensure that access within **plantations** is of an adequate standard to ensure that **plantation establishment, tending**, fire management and harvesting can be carried out efficiently and safely, without adverse offsite impacts.

Guidelines

- Roads and **tracks** of a suitable standard should be established before they are required to be used, to allow consolidation of the running surface.
- **Temporary roads** established for a specific operation should be closed and rehabilitated unless they serve an ongoing purpose.
- All roads should be adequately drained and stabilised to improve pavement strength, consistent with the intended use.
- Roads should be located on alignments and grades that provide the required standard of access without compromising road safety, **water quality** and other environmental values.
- New roads should be kept to the minimum necessary to satisfy management requirements, be located in an appropriate position (e.g. avoiding **watercourse** crossings where possible), and be constructed under suitable weather conditions with an appropriate lead time to allow consolidation.
- New roads specific to the harvesting operation should be outlined in the **plantation harvest plan**.

For additional information on environmental measures, see the DoW's Water quality protection note: *Roads near Sensitive Water Resources*.

4.5.1.2 Road Location

Goal

Locate roads to provide adequate and safe access within the **plantation** whilst minimising the risk of soil erosion and the degradation of **water quality**.

Guidelines

Roads should be planned, where possible, such that they:

- are constructed on the contour to minimise the need for drainage works;
- require the minimum amount of **vegetation** clearing necessary for road construction, safe operation and maintenance;
- minimise the spread of diseases, pathogens and declared weeds;

- minimise the number of **watercourse** crossings and other interference with natural drainage;
- are located outside the **riparian zones** of **watercourses** and **wetlands**, except for waterway crossings; and
- minimise the amount of earthworks by running along ridges and spurs, and avoiding steep side slopes and areas prone to slippage.

4.5.1.3 Road Design

Goal

Roads are designed to carry the level of traffic anticipated in **plantations** throughout the **rotation**, and beyond if necessary, with reasonable safety.

Guidelines

- New or upgraded roads should be designed to accommodate the anticipated frequency, type and speed of traffic, soil and sub grade conditions, road drainage and **water quality** requirements, and landscape and other environmental values.
- **Permanent roads** should be constructed on alignments with ruling grades that generally do not exceed one in 10, steeper grades being permissible for short sections with appropriate drainage controls to minimise erosion. **Temporary roads** may be constructed on alignments with ruling grades steeper than one in 10, provided erosion controls are implemented.

4.5.1.4 Road Construction

Goal

Plan and construct roads well in advance of harvesting operations and to coincide with favourable weather conditions.

Guidelines

- Road construction should be undertaken when soil is not saturated in order to minimise the risk of erosion. Sufficient moisture needs to be present or added to enable stabilisation of the road surface and road sub grade.
- **Hygiene** practices should be implemented where necessary to prevent the spread of soil-borne pathogens and declared weeds. Information is available from the DPaW.
- Stumps and other debris should not be buried in the load-bearing portion of the road.
- Embankments and fills should be stabilised using accepted engineering practices.
- When constructing **permanent roads**, topsoil should be stockpiled and returned to **batters** and embankments ready for **rehabilitation** works.

- Drainage structures should be installed concurrently with the formation of the road. Sections of partly constructed road to be left over winter or for other extended periods should be drained by out-sloping or cross-drains.
- To avoid spills of fuel and oil reaching **watercourses, wetlands** and **reservoirs**, refuelling of machinery should be undertaken away from these areas.

4.5.1.5 Road Drainage

Goal

Road drainage should prevent erosion as far as possible and not have a detrimental impact on **water quality**.

Guidelines

- Roads should be constructed to facilitate and control **run-off**.
- Drainage structures should be spaced according to the road grade, soil type, and conform to accepted standards.
- Drainage from roads should discharge onto rock spillways or into the **plantation** or undisturbed **vegetation**. Direct discharge of water containing soil matter into **watercourses, wetlands** or **reservoirs** should be avoided.
- All culverts, drains and silt traps should be kept clear of soil and debris likely to obstruct the flow of water and, as a minimum; they should be cleaned out before the wet season and following significant storm events.
- Discharge points from roads should be provided before the road enters **riparian zones** or **buffer strips**.

4.5.1.6 Road Batters

Goal

Maintain the integrity of roads by appropriate design and maintenance of **batters**.

Guidelines

- **Batters** should be sloped and stepped if necessary to avoid riling and slumps.
- Topsoil should be returned to **batter** surfaces and revegetated.
- Catch drains above battered banks exceeding three metres in height should be installed to reduce erosion of the **batter**.
- Retaining walls and other structures should be used where necessary to maintain the integrity of the **batter**.

4.5.1.7 Watercourse and Drainage line Crossings

Goal

Minimise the number of **watercourse** crossings. Where it is necessary for a road to cross a watercourse, it should be via a bridge, culvert or ford. Design of such should meet the transport needs and minimise impacts on **water quality** and **riparian vegetation**.

Guidelines

Crossings should account for the volume of the average flow, particularly taking into consideration the impact of clear felling and **site preparation** practices on **run-off** into drainage channels.

Construction should ensure that:

- Disturbance to the **watercourse** bed and banks is minimised.
- Fill or spoil material is not pushed into **watercourse**, nor into a position where it can move into a watercourse.
- Cement and raw concrete are not spilt into running **watercourses** as they can be toxic to aquatic fauna and flora.
- Bridges should be designed to prevent overtopping during one in 10-year flood events and be protected by debris traps in areas of regular flooding.
- Fords may be constructed on roads where use is infrequent or water flow is light.
- Permanent culverts should be designed to cope with peak flows (e.g. a one in 10-year flood event). Water that is diverted by a culvert must be returned to its natural course by a **flume**, rocked spillway or other hard-surfaced construction to minimise erosion. Culverts should be aligned across **watercourses** such that the construction does not prevent the movement of aquatic fauna up-stream.
- Excavations for bridges, placement of sills or abutments should not alter natural **watercourse** flow, and the positioning of **stringers or girders** should be above the high water mark. Earth embankments constructed for bridge approaches should be protected from erosion by revegetation, retaining walls, bulkheads or rock surfaces. Topsoil should be stockpiled for re-distribution to assist **rehabilitation**.
- Temporary bridges and culverts should be removed promptly after use and the approaches rehabilitated.
- A permit is required to interfere with the bed and banks of **watercourses** proclaimed in accordance with the latest relevant legislation as per *Section 3:17e*. Contact DoW regional offices for information on proclaimed areas and permit applications.

4.5.1.8 Road Maintenance

Goal

Maintain road surfaces and drainage installations in order to protect the road foundation and form, and to provide for continuous safe drainage.

Guidelines

- Roads should be maintained to provide for the safe operation of vehicles; ensure the integrity of the surface remains intact to ensure that drainage is not impeded; and to ensure that systems are not allowed to deteriorate such that erosion may occur.
- **Vegetation** on the verges of roads should be managed to maintain visibility and to prevent drainage systems becoming blocked.
- The condition of the roads and associated drainage should be regularly assessed.
- Drainage structures should be maintained regularly.
- Road maintenance programs should be undertaken at least annually, including inspection of culverts and silt traps. If necessary, they should be de-silted prior to commencement of the wet season.

4.5.1.9 Road Closures

Goal

Effective measures are in place to facilitate prompt closure of unpaved roads when damage conditions occur or when they are no longer required for management purposes.

Guidelines

- Roads should be closed to heavy traffic and be rebuilt if structural damage to the road occurs.
- Roads that are to be permanently closed should be ripped then rehabilitated either by planting with a commercial species or appropriate alternative **vegetation**.
- Roads should be closed to heavy and light traffic, or suitably upgraded, when **water quality values** are threatened in neighbouring **watercourses**. Measures should be taken to minimise adverse impacts on water quality.

4.5.2 Public Roads

The **road manager** for **public roads** is in many cases the local authority and for major routes, MRWA may be the manager. Roads through DPaW managed land may be the responsibility of the local authority and others may be managed by DPaW.

Goal

Maintain the integrity of the **public road** system used for the haulage of wood products whilst ensuring public safety.

Guidelines

- Where local roads have been designated by the relevant **road manager** to be below the standard appropriate for the haulage vehicle being used, traffic management measures are to be implemented following consultation with the local government to minimise damage to the road and to ensure safety requirements are met. For details refer to Appendix 2.
- **Plantation managers** must be aware that **road managers** may require some modification or restrictions to the proposed haul route to ensure the safety of other road users.
- Where more than one **plantation manager** proposes to use a particular road as a haulage route at the same time, the owners in consultation with the **road manager** should coordinate activities to minimise damage to the road network and to ensure a safe work environment is achieved.
- **Plantation managers** should (where practical) join regional road advisory committees to assist in road-traffic planning processes and to coordinate regional road issues, including contributing information and advice to State and Federal Government processes in relation to funding for road upgrades and maintenance, and to coordinate harvesting and road haulage activities.
- The **plantation manager** must ensure that roads used as haulage routes are reinstated following harvest to at least the condition existing before harvesting. A pre-harvest joint inspection of the condition of the roads should be conducted between the grower and the responsible **road manager**.
- Following the completion of harvest a further joint inspection of the relevant local roads, used as a haulage route should be conducted by the same parties.
- The **plantation manager** is only responsible for reinstatement and/or repairs in respect to any damage, excluding fair wear and tear, caused to roads that are directly related to the haulage of harvested wood products from land on which the harvest has taken place.

4.5.2.1 Pits Supplying Materials for Road, Bridge or Log-landing Construction

Goal

Locate gravel pits, **borrow pits** and disposal pits to minimise the impact on water quality, and not affect other environmental values.

Guidelines

- Where the development of gravel pit or **borrow pit** involves the **clearing of native vegetation**, a clearing permit in accordance with the latest relevant legislation as per *Section 3:5c* is required, unless an exemption applies. Preference should be given to establishing quarries, gravel pits or borrow pits on cleared or highly degraded land.
- **Hygiene** practices must be implemented to prevent the spread of soil-borne pathogens and weeds. For more information, contact DPaW.
- **Borrow pits** located in **PDWSAs** must be managed in accordance with the DoW's Water quality protection note: *Extractive Industries near Sensitive Water Resources*.
- Gravel pits and **borrow pits** should be located at a suitable distance from **watercourses** and **riparian zones** (preferably at mid- or upper-slope) so as not to damage the watercourse and riparian values.
- **Run-off** from disturbed surfaces (e.g. gravel pits and quarries) should, where possible, be directed into areas of undisturbed **vegetation** and not allowed to run into **wetlands**, **watercourses** or drainage channels unless soil matter has settled out (i.e. discharged into silt traps or sumps).
- Gravel pits and **borrow pits** should be rehabilitated within one year of the pit becoming redundant or exhausted. Banks should be **battered**, compacted areas ripped and topsoil returned.
- **Plantation management plans** should take into account gravel resources on a property to allow for gravel reserves be accessible for future road requirements.

4.6 Silviculture of Plantations

4.6.1 Site Assessment

Goal

Assess potential sites for **plantation establishment** in accordance with accepted site-selection methods to ensure that limitations to growth are identified.

Using the assessment system to identify sites that require modification (i.e. ripping, mounding and draining) to ensure acceptable **establishment** and growth, whilst considering wind and water **erosion hazards**.

Guidelines

- All land proposed for **plantation** development should be subjected to site assessment to determine suitability.
- **Plantation** sites should have soils of adequate depth and rainfall sufficient to sustain a plantation for the **rotation**.
- Site surveys should be carried out with trained staff using accepted standards.
- All soils should be assessed for salinity and pH using an electrical conductivity meter or by soil-sampling techniques and managed accordingly. The risk to **plantation** growth and survival posed by rising saline groundwater should be considered.

4.6.2 Species Selection

Goal

Establish **plantations** with species or hybrids selected for their rate of growth, quality of wood or other products with suitability to the site.

Guidelines

- At the discretion of the **plantation manager**, **plantations** should be established with species selected for their market, type of wood or other products, adaptability to particular sites, productivity, form and resistance to **pests** and **diseases**.
- **Plantation** species will commonly be **exotic** to the locality and need not be native.
- **Plantations** should be managed primarily to yield economic volumes of wood or other merchantable products; however, plantations could be established for other than commercial reasons.

4.6.3 Site Preparation

Goal

Use appropriate **site preparation** procedures to achieve desired **establishment** standards whilst taking due consideration for protection of soil and water qualities.

Guidelines

- **Site preparation** activities must adhere to the requirements of the relevant legislation in accordance with *Section 3: Environment*. Burning of debris during initial clean-up should be carried out in accordance with local government fire-control by-laws and firebreak notices.
- Operation of **site preparation** equipment should avoid **riparian zones**.
- **Site preparation** could include ripping, cultivating and mounding as required to improve **establishment** and achieve stocking levels and growth rates that are acceptable to the **plantation manager**.

- Grade banks should be considered and constructed at appropriate intervals to transfer excess surface water from the site into areas of undisturbed **vegetation**, **filter strips** or back into the **plantation** as appropriate.
- On steep slopes (i.e. greater than one-in-three), broad-scale cultivation should be avoided.
- For subsequent **rotation establishment**, the **plantation manager** may wish to retain **harvest residue** on the site after harvesting to conserve nutrients, assist with soil water retention, reduce weed competition, reduce evaporation loss and reduce erosion risk.
- Where burning of **harvest residue** is the chosen option, burning should be implemented to minimise erosion risk, avoid damage to **vegetation** outside the operational area (e.g. **riparian zones**) and conducted in accordance with fire-prevention requirements and local government fire control by-laws.
- To avoid spills of fuel and oil reaching **watercourses**, **wetlands** and **reservoirs**, refuelling of machinery should be undertaken away from these areas.
- **Hygiene** measures should be employed, where appropriate, to reduce the spread of **pests**, **diseases** and weeds to the standards consistent with best practice.

4.6.4 Fertilising

Goal

Apply nutrients and trace elements to correct deficiencies and to stimulate growth to ensure **plantation** productivity and economic viability are maintained. The use of fertilisers should avoid adverse offsite impacts.

Guidelines

- The use of fertilisers in **PDWSAs** must be in accordance with the DoW and Environmental Protection Authority (EPA) policies and guidelines, in accordance with the latest relevant legislation as per *Section 3:17a*, and related environmental protection policies for water source **catchments**.
- Plantations should be monitored for nutrient and trace-element deficiencies and fertilisers applied as found necessary by the **plantation manager**.
- Treated municipal wastewater should only be applied to **plantations** where the soils and substrates have been demonstrated to be suitable for such disposal, and where approval from the Health Department and the DER has been granted, as applicable.
- Fertilisers, particularly nitrogen, are best applied when soils are moist rather than saturated or dry.
- Methods to minimise nutrient transport off site should be applied.
- **Plantation** growers should collaborate to develop best management practice for plantation nutrient management.

4.6.5 Weed Control

Goals

- Control competing **vegetation** in **plantations** at the **establishment** phase to ensure good initial survival of trees and at later stages to promote efficient and economic growth as well as unimpeded access in plantations.
- Use **pesticides** to control weeds within approved labels and/or off-label permits and accepted guidelines for the chemicals being used.
- Use **pesticides** to control weeds and avoid adverse offsite impacts.
- Ensure that any **plantation** species that have the potential to become weeds are prevented from spreading outside the plantation.

Guidelines

- **Pesticides** used to control weeds must be used in accord with labels and off-label permits and the DoH guidelines on the use of chemicals in rural areas contained within the latest relevant legislation as per *Section 3:12e and 12f*.
- **Plantation** growers should also abide by the provisions of the Code of Practice for the Use of Agricultural and Veterinary Chemicals in Western Australia.
- The application of **pesticides** in **PDWSAs** must conform to the DoH's Public Service Circular 88 (*Use of Herbicides in Water Catchment Areas*) and the DER and EPA's relevant statutory regulations.
- Aerial application of **pesticides** must adhere to the provisions in accordance with the latest relevant legislation as per *Section 3:12a*.
- Rates and methods of application must be in accordance with approved procedures as described in the Australian Materials Safety Data Sheets and **specifications** as on the product label.
- Particular care should be taken to prevent **pesticides** being washed or leached into **watercourses, wetlands** or **reservoirs**.
- Unwanted **vegetation**, including **declared plants** and other **prescribed pest plants**, and **plantation** species invading other areas, should be controlled by methods that minimise adverse offsite impacts.
- Disposal of all chemical containers must be as specified by the chemical manufacturer and comply with the latest relevant legislation as per *Section 3:12f*. Empty chemical drums will be disposed of at a Drum Muster location. These are located in most local government waste disposals sites. Drums need to be triple rinsed and drained before taking to the local waste disposal site.
- Only **pesticides** that are registered for use in **plantations** or have been permitted for use by the National Registration Authority under the national 'off label' permit scheme can be used.
- Plantation managers **will endeavour to cooperate with neighbours and public authorities to control the spread of wildlings into adjoining lands**.

- Weeds should be controlled using appropriate methods at the time of **establishment** or at any other time during the life of the **plantation** as deemed appropriate by the **plantation manager**.
- **Exotic** trees or plants should not be allowed to spread into neighbouring native forest or woodland from **plantations**. If this occurs, practical measures should be taken, to remove such plants or trees. Where plantation trees or plants have established on neighbouring properties the owner should be consulted before their removal.
- Persons applying **pesticides** may require licensing with the DoH subject to the provisions of regulations listed in *Section 3:12(f)*.

4.6.6 Control of Insects

Goals

- Minimise the impact of **pest** damage to **plantations** by the use of **pesticide** sprays and biological or physical control techniques to ensure that plantations are not adversely affected and remain commercially viable.
- Use **pesticides** within accepted guidelines for the chemical being used.
- Use of **pesticides** should avoid adverse offsite impacts.
- Use **pesticides** with due consideration for neighbouring activities that may be sensitive to **pesticides**.

Guidelines

- Aerial application of **pesticides** must adhere to the provisions of the latest relevant legislation as per *Section 3:12a*.
- The application of **pesticides** in **PDWSAs** must be in accordance with the DoH, DoW, DER and EPA. This includes the DoW's statewide policy *Pesticide Use in Public Drinking Water Source Areas*.
- Chemicals used to control insect **pests** must be used in accordance with the Public Health Guidelines on the use of chemicals in rural areas contained in accordance with the latest relevant legislation as per *Section 3:12e*.
- **Plantation** growers must abide by the provisions of the 'Code of practice for the use of agricultural and veterinary chemicals in Western Australia'.
- Where **pesticides** are used they must be registered by the National Registration Authority or used under permit according to the national 'off label' permit scheme.
- Rates and methods of application of **pesticides** must be in accordance with approved industry **specifications** and the product label specification.
- **Plantations** should be monitored regularly for insect **pests**, particularly at times when insect pests are known to be active.
- The **plantation manager** should, where practicable, implement control measures when threshold levels are reached and or when the level of damage is considered to be unacceptable.

- Aerial spraying activities are to be managed according to an aerial spray application management plan (Appendix 3) which outlines a process of communication between **plantation managers** and **neighbours**, to ensure that neighbours: (1) are aware of planned spray activities; (2) have the opportunity to comment on the development of a spray plan; and (3) take any precautionary measures they choose.
- **Pesticides** should not be applied by air unless all adjacent landholders have been notified.
- Particular care should be taken to avoid **pesticides** being washed or leached into water bodies.
- **Integrated pest management** systems should be considered to help reduce insect populations and to complement other insect control techniques.
- Measures to prevent the introduction of **exotic** insects should be addressed by the implementation of a management plan developed by the **plantation manager**. Early warning systems to identify outbreaks of exotic insects should be implemented, and control systems for immediate deployment should be in place.
- The **plantation** industry through the Plantation Industry Biosecurity Group should undertake pest risk assessments for potential harmful **exotic** organisms and develop risk management plans to mitigate against the introduction of exotic organisms.
- Disposal of all chemical containers should be as specified by the chemical manufacturer and in accordance with the latest relevant legislation as per *Section 3:12f*. Empty chemical drums will be disposed of at a Drum Muster location. These are located in most local government waste disposals sites. Drums need to be triple rinsed and drained before taking to the local waste disposal site.
- Persons applying **pesticides** may require licensing with the DoH subject to the provisions of regulations listed in *Section 3:12(f)*.
- **Plantation** growers should collaborate to develop best management practice for the assessment and management of plantation **pests**.

4.6.7 Control of Vertebrate Pests

Goal

Control vertebrate **pests** in **plantations** using accepted methods.

Guidelines

- Control of animals (native and feral) must adhere to the latest relevant legislation in accordance with *Section 3:2b* and the *Wildlife Conservation Act 1950 Section 3:5j*. Native vertebrates that impinge on the productivity of **plantations** should be controlled under damage permits issued (if required) by DPaW using methods stipulated on the permit.
- The application of **pesticides** in **PDWSAs** must be in accordance with the DoH, DER, and EPA relevant statutory regulations.

- Damage to **plantations** or seed orchards by birds may be addressed by the use of deterrents or a combination of control strategies. Where control of protected native species becomes necessary, permits must be obtained from the DPaW.
- **Pests** should be controlled before the **establishment** of **plantations** and in existing plantations, if the **plantation manager** considers control necessary.

4.6.8 Disease Control and General Plantation Health

Goal

Manage **diseases** in **plantations** to maintain the plantations in good health.

Guidelines

- Health and vigour should be monitored and promoted through appropriate management practices to reduce **disease** impacts in the **plantation** estate.
- **Plantations** should be monitored periodically for outbreaks of pathogens and remedial action taken where feasible.
- Special measures may need to be implemented at a regional scale to manage future threats to the health and productivity of **plantations** and surrounding lands. Where practicable, this should be achieved through cooperation and collaboration, within the industry, with **neighbours** and in accordance with the requirements of *Section 3:2b*.
- It is preferable that nursery stock should be grown in nurseries accredited under the Nursery Industry Association of Australia scheme.
- Contemporary **hygiene** techniques should be implemented, where appropriate, to stop the spread of any declared or **exotic pest, disease** or weed within a **plantation**.
- If the introduction of an **exotic pest, disease** or weed is suspected that triggers **incursion response**, the relevant authority must be notified.

4.6.9 Thinning and Pruning

Goal

Manage **plantations** to achieve specific objectives by the use of appropriate silvicultural strategies.

Guidelines

- **Plantations** should be thinned, where required, to maintain stand health and to increase yields of high-value products where this is an objective of the manager and is considered to be economically desirable.
- **Plantations** may be pruned to meet specified wood production objectives or for access, fire control and visibility.

It is recommended that records of pruning and **thinning** operations be maintained.

4.6.10 Coppice Management

Goal

Coppice management is often used in hardwood **plantations**, subsequent **rotation** where the **plantation manager** has elected to grow the subsequent rotation from coppice, rather than re-establishing it with tree stocks.

Guidelines

- Prior to **coppice thinning**, a coppice assessment should be undertaken to ensure that there is an adequate strike rate of stumps to allow a coppice **rotation** to be managed.
- **Coppice** is typically thinned at 18 months to three years after harvest
- Thin **coppice** to the desirable number of stems per stump with retained stems selected on dominance, attachment to the stump, vigour and form; and
- Reduce stocking in the stand to the prescribed stocking.

4.7 Timber Harvesting

4.7.1 Planning

Goal

- Provide local governments with information, in advance, relating to the harvest and planned use and management of local roads.
- Minimise adverse impact on the integrity of **public roads** and other road users.
- Harvest **plantations** based on a **plantation harvest plan** (as outlined in Appendix 1B), with the aim of maximising timber recovery without detrimental impacts on the environment.

Guidelines

- Notify local governments of the schedule of harvesting and the intention to use **public roads** at least 18 months before intended harvesting operations if practicable or applicable. The initial advice does not necessarily require the preparation of a detailed **plantation harvest plan** and is primarily for local government planning and budgetary purposes. For details refer to Appendix 2A.
- Where appropriate, the **plantation harvest plan** must comply in accordance with the latest relevant legislation as per *Section 3:11a, 5a, 6a, 5i, 5c, 18c and 17a* as a condition of **establishment** of a **plantation**.
- In circumstances where harvesting is necessary following a natural disaster (wind, fire, drought etc.) the **plantation manager** must make special representation to the local government to facilitate harvesting and transport procedures.
- Where a number of adjoining **plantations** are proposed to be harvested over a one-year period, the **plantation manager** may develop a single **plantation**

harvest plan designed to cover all those plantations instead of developing plans for individual plantations.

4.7.2 Felling Operations

Goal

Felling operations are carried out by competent operators using appropriate equipment to maximise utilisation with due care for safety and the environment.

Guidelines

- Felling should be carried out in accordance with the **plantation harvest plan**.
- As a general principle, trees should not be felled across wetlands, **watercourses**, **riparian zones** and natural **drainage lines**. All tops, and other debris generated by the felling operation should be cleared from culverts, road drains, sumps, roads, and firebreaks.
- To avoid spills of fuel and oil reaching **watercourses**, **wetlands** and **reservoirs**, refuelling of machinery should be undertaken away from these areas.
- **Hygiene** measures should be employed, where appropriate, to reduce the spread of **pests**, **diseases** and weeds to the standards consistent with best practice.

4.7.3 Processing and Extraction

Goal

Process and extract timber from **plantations** by deploying experienced and adequately trained operators using appropriate equipment suited to the plantation conditions so as to achieve acceptable standards of utilisation, safety, environmental care and economic efficiency.

Guidelines

- Special attention should be given to the location of entry points from the **plantation** onto **public roads** for reasons of safety and road maintenance.
- Harvesting machinery should not enter **riparian zones** or designated **buffers**.
- Harvesting residue should not be placed in wetlands, **watercourses**, **buffers** and **drainage lines** in the course of harvesting operations. Any debris blocking more than 10 per cent of the cross-sectional area of a drainage line or watercourse should be removed, as it may affect water levels and contribute to erosion or flooding.
- All culverts and road drains should be kept clear of soil or logging debris that may prevent the flow of water.

- **Hygiene** measures should be employed, where appropriate, to reduce the spread of **pests, diseases** and weeds to the standards consistent with best practice.
- Procedures should be incorporated into the Timber Harvest Plan to address situations where unacceptable **soil damage** or erosion is likely.
- To avoid spills of fuel and oil reaching **watercourses, wetlands** and **reservoirs**, refuelling of machinery should be undertaken away from these areas.

4.7.4 Log Landings and Processing Sites

Goal

Log landings and forestry product processing sites are located, constructed, maintained and rehabilitated with regard to the efficiency of the operations and the principles of environmental care outlined in *Section 2.1.1*.

Guidelines

- Log landings and processing sites should be located within the **plantation** where possible but should not be located within retained **native vegetation** (areas retained through plantation planning and design – refer to *Section 4.3*).
- Log landings and processing sites should not be located on areas that are likely to impact on the integrity of **watercourses, wetlands** and **drainage lines**.
- Log landings and processing sites should be located away from dwellings.
- Non-permanent log landings and processing sites should be rehabilitated such that they can be re-established to **plantation**.
- In **PDWSAs**, the end land use for non-permanent log landings and processing sites should be consistent with the protection planning for the water source.
- Drainage-control measures should be employed where necessary to protect water bodies.
- To avoid spills of fuel and oil reaching **watercourses, wetlands** and **reservoirs**, refuelling of machinery should be undertaken away from these areas.

4.7.5 Haulage

Goal

Haul timber from **plantations** using experienced and adequately trained operators utilising appropriate equipment to achieve acceptable standards of safety, environmental care and economic efficiency.

Guidelines

- Comply with the latest relevant legislation as per *Section 3:7b*.

4.8 Reversion

Goal

Plantations may be changed back to an alternative land use. The goal is to revert plantations, using experienced and adequately trained operators utilising appropriate equipment, to achieve acceptable standards of safety, environmental care and economic efficiency.

Guidelines

- Where the **plantation** will not be re-established, a plan addressing subsequent land use should be developed where required, in consultation with relevant agencies and the landowner/manager.
- **Reversion** activities must adhere to the requirements of the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* and the *Soil and Land Conservation Act 1945* in accordance with the latest relevant legislation as per *Section 3:5f and 5i*.
- To avoid spills of fuel and oil reaching **watercourses**, **wetlands** and **reservoirs**, refuelling of machinery should be undertaken away from these areas.
- **Hygiene** measures should be employed, where appropriate, to reduce the spread of **pests**, **diseases** and weeds to the standards consistent with best practice.
- **Reversion** machinery should not enter **riparian zones** or designated **buffers**.
- Only **pesticides** that are registered for the relevant land use by the National Registration Authority under the national 'off label' permit scheme should be used.
- Burning of debris during clean-up should be carried out in accordance with local government fire-control by-laws and firebreak notices.
- **Run-off** from disturbed surfaces should, where possible, be directed into areas of undisturbed **vegetation** and not allowed to run into **wetlands**, **watercourses** or drainage channels unless soil matter has settled out (i.e. discharged into silt traps or sumps).

4.9 Storage and Handling of Chemicals, Fuels and Oils

Goal

Implement appropriate measures to ensure health, safety or environmental **incidents** involving the storage, transport, handling and disposal of chemicals, fuels and oils are prevented/minimised.

Guidelines

- In accordance with documents listed under the **pesticides/spraying**, hazardous substances/ dangerous goods and OSH categories of *Section 3*, chemicals must be stored, used and disposed of according to product registration and label specifications; appropriate off-label permits as provided by the Australian **Pesticides** and Veterinary Medicines Authority (APVMA), and the provisions of relevant legislation and other requirements.
- Ensure any chemical product restrictions and protocols that apply for 'water protection areas' as proclaimed in documents listed under the Water category of *Section 3* are adhered to.
- The discharge of hydraulic fluids, engine oil or fuel onto the ground should be avoided. If an accident occurs, clean-up systems should be applied immediately. Chemical drums should be located where there is no possibility of contaminating waterways. Waste oil, empty drums, discarded machinery parts and other waste should be immediately removed from the **plantation** at the completion of servicing.
- To avoid spills of fuel and oil reaching **watercourses**, **wetlands** and **reservoirs**, refuelling of machinery should be undertaken away from these areas.
- Persons applying **pesticides** may require licensing with the DoH subject to the provisions of regulations listed in *Section 3:12(f)*.

4.10 Incident Management

Goal

Develop and implement appropriate **incident** management procedures to address the human health, environmental, and economic effects of incidents associated with **plantation** activities.

Guidelines

As part of the **plantation** grower's duty of care to maintain safe and health workplaces and systems of work, investigate accidents and **incidents** to prevent reoccurrence.

Report any noticeable **incidents** suffered by an employee to the Worksafe WA Commissioner. A list of these injuries and diseases can be found in OSH Regulations 2.4 and 2.5.

In accordance with *Section 3*, report any discharge of waste that has caused or is likely to cause pollution, material environmental harm as defined in the Act or serious environmental harm to the DoE regulation.

Plantation growers should prepare and maintain:

- an effective **incident management plan** to respond to incidents likely to impact on the local environment. This may be a generic plan that can be activated in the event of any type of incident; and

- procedures to effectively minimise the detrimental impacts of **incidents** that may have a localised affect on human health, environment, or the economy.
- Designated **plantation** staff and contractors should be trained and equipped to effectively deal with foreseeable **incidents**, for example spills and events involving powerlines.
- Any spill of **pesticide**, fuel or other chemical to the environment in a **PDWSA** should be reported on discovery to the Water Corporation.
- Procedures that define the action to be taken in the event of an **incident** should also specify remedial action and **rehabilitation** procedures after the event.

4.11 Agriculture Protection and Neighbour Relations

Goal

Foster good relations between **plantation managers**, local government and neighbouring landowners.

Prevent unauthorised or **disease**-carrying domestic stock from residing in **plantations** and ensure measures are in place to prevent plantations becoming a refuge for feral animals.

Manage **declared plants** and other **prescribed pest plants** and **pest** weeds in **plantations** appropriately.

Guidelines

- Owners of **plantation** land must maintain boundary fences in accordance with the latest relevant legislation as per *Section 3: 10a*.
- **Plantation managers** must act in accordance with the latest relevant legislation as per *Section 3:2c* in relation to potential **disease** outbreaks on their property.
- **Declared pests** and weeds present in **plantation** areas must be managed in accordance with the latest relevant legislation as per *Section 3:2b*.
- Importation into Western Australia of plant material or timber products must be undertaken in accordance with the latest relevant legislation as per *Section 3:2e, 2f*.
- **Plantation managers** should endeavour to notify neighbouring landowners prior to the commencement of potentially disruptive activities including shooting and burning (including outside of restricted burning times).
- Any unauthorised stock in **plantations** may be removed in accordance with the latest relevant legislation as per *Section 3:14a*. Reasonable efforts should be made to identify owner prior to removal.

4.12 Research and Development

Goal

Maintain an adequate research capacity to improve economic efficiency of **plantations**, develop new technologies and to ensure that plantation objectives are met.

Guidelines

- **Plantation managers** (where practical) should maintain a research capacity or support external research agencies and local research cooperatives.

4.13 Safety

Goal

Carry out **plantation** operations as safely as practical and in accordance with all relevant occupational safety and health legislation, codes of practice and standards.

Guidelines

- **Plantation establishment**, management, harvesting and fire protection activities must comply in accordance with the latest relevant legislation as per *Section 3:10a and 11a*.
- All operators must wear specified, personal safety equipment for the operation.
- Operators should be trained and certified to accepted standards in the safe use of equipment, materials and machinery.
- Managers, contractors and workers should be jointly responsible for determining and implementing safe work practices.

4.14 Competency and Training

Goal

Employ competent personnel to operate in **plantations** and carry out the duties prescribed in accordance with best practice for **plantation management**.

Guidelines

- Training of personnel engaged in **plantation** activities is the collective responsibility of **plantation managers**, contractors and subcontractors.
- **Plantation managers**, employees and contractors should be appropriately trained, licensed or deemed competent.
- Training should be based on the provisions of **competency**-based training in accordance with the latest relevant legislation as per *Section 3:15a* to ensure recognition for practitioners against the Australian Qualifications Framework.

- Personnel required to operate in **plantations** located in **PDWSAs** should be aware of requirements for management of these areas.

Section 5: Fire Prevention and Suppression

5.1 Fire Prevention

Goal

Prevent bushfires entering or escaping from **plantations** consistent with State and local government requirements.

Guidelines

- The size of **plantation** compartments and firebreak specifications must comply with the latest relevant legislation as per *Section 3: 6a and 6b* issued by the DFES and local government firebreak notices.
- Vehicles and machinery travelling in **plantations** during restricted and prohibited burning times must comply with the latest relevant legislation as per *Section 3:6a* and Australian Standard 1687.
- **Plantation** owners and landowners may require specific limitations on plantation **tending** and/or harvesting activities to address particular issues regarding fire prevention. This should be incorporated into the **Fire Management Plan** and complied with by the **plantation manager**.
- A **fire management plan** should be available for each **plantation**. (Refer to Appendix 1.)
- Firebreaks, water points and **plantation** compartments should be shown on the **plantation map**.
- Firebreaks, roads and **tracks** should be maintained free of flammable material during the bushfire risk period. Measures to minimise erosion and preserve water quality are maintained.
- Roads and internal breaks within **plantations** should be maintained in a trafficable condition and must allow through traffic.
- Prescribed burning should be considered at a regular interval in **native vegetation** and paddocks adjacent to **plantations** to reduce fuel loads as a means of protecting the plantation and the native vegetation from wildfire. **Plantation managers** should cooperate with local government, relevant landowners and authorities in burning for fuel reduction.
- Grazing should be considered, where appropriate, to reduce fuel loads in **plantations**. Grazing in **PDWSAs** should be consistent with **water quality** protection objectives and should be treated in accordance with normal grazing practices
- **Plantations** should be pruned as required in strategic locations for fire protection and to allow easy access in the event of a fire in accordance with local government firebreak notices.

5.2 Bushfire Suppression

Goal

Identify and control fires that start in **plantations** or threaten plantations in the shortest time possible.

Guidelines

- Bushfire suppression activities must adhere to all relevant legislation in accordance with the latest relevant legislation as per *Section 3:6*.
- The use of fire retardants in **PDWSAs** must be in accordance with the DoW and EPA regulations.
- Personnel employed in **tending** and harvesting operations should be trained in fire awareness to a level that meets the minimum standards for **plantation managers** OSH and Environment and/or DFES guidelines for **plantation** fire protection.
- **Plantation** owners and managers should engage with local government and state government authorities to assist with bushfire risk management activities.
- This Code promotes coordination and cooperation between **plantation** managers, local government authorities, local volunteer fire brigades, DPaW and DFES in fire prevention, detection and suppression activities.
- **Plantation** owners are required to pay the prescribed emergency services levy to the local government authority annually, in accordance with the relevant legislation as per *Section 3: 6*. A sufficient number of water points must be established and maintained in or nearby to plantations.
- **Plantation** owners and managers should participate in local fire brigades to assist in fire prevention planning and control activities.

Appendix 1: Protocols for Management Plans

A. Plantation Management Plan

A plantation management plan is prepared to provide relevant information in respect of the way in which plantations are developed and managed, and to demonstrate the means by which the principles of environmental care, cultural, heritage social and economical management objectives are achieved.

Plantation management plans are dynamic documents and may change from time to time as a result of new information, new or revised laws, or for strategic or operational imperatives.

Plantation management plans are recommended content; however land managers/owners and/or plantation owners may have other requirements.

A plantation management plan should take account of the scale of operations and may include the following:

1. a plantation map;
2. an establishment plan;
3. a maintenance plan; and
4. a fire management plan.

1. Plantation Map

A map of the plantation should provide the following:

- plantation manager details;
- an area statement showing plantation categories and areas;
- a locality plan and access roads;
- cadastral information;
- known environmental and OSH hazards;
- improvements:
 - buildings;
 - roads, tracks, firebreaks, bridges, creek crossings;
 - fences, gates, utilities, water points;
- natural features:
 - watercourses and wetlands;
 - areas of native vegetation; and
 - significant values.

2. Establishment Plan

This should outline the following topics and how they are to be managed:

- areas of native vegetation and significant values;
- setback distances to watercourses, wetlands, reservoirs and significant values;
- statutory setback distances to dwellings and gazetted infrastructure;
- management of harvest residue;
- control of declared animals, declared plants and other pest plants;
- areas to be planted, compartment sizes;
- species to be planted;
- direction of planting lines in relation to contours and natural drainage;
- description of soil preparation methods;
- pest and weed control prescription;
- planting prescription;
- access and firebreaks
- fertilising prescription;
- sensitive neighbours;
- sensitive property; and
- security management

3. Maintenance Plan

This should outline the following management activities to be conducted during the rotation of the plantation and how they intend to be managed:

- native vegetation management;
- pruning and thinning regimes;
- control of declared animals, declared plants and other pest plants;
- weed and pest control prescription;
- fertilising prescription;
- access and firebreak maintenance;
- grazing strategy;
- inventory;
- bio-security issues;
- infrastructure maintenance; and
- significant feature management.

4. Fire Management Plan

The fire management plan should contain the following details:

- Plantation manager's telephone numbers;
- names and addresses of local fire control agencies;
- locality plans showing access roads, firebreaks, water points etc.;
- methods of access and firebreak maintenance;
- specific measures to protect services; e.g. power lines and gas pipelines;
- a fire fighting equipment register for the locality and details of cooperative arrangements;
- direction indicators to water points, road signs and other features;
- details of coordination and cooperation between plantation managers, local government authorities, local volunteer fire brigades DPaW and DFES in fire prevention, detection and suppression activities.; and
- a fuel reduction program, if applicable.

B. Plantation Harvest Plan

As a separate plan to the plantation management plan, a harvest plan is generally produced later in accordance with the haulage-management notification provisions outlined in Appendix 2.

This plan provides the relevant information for how the plantation is to be harvested. Harvest plans are dynamic documents and may change from time to time as a result of new information, new or revised laws, or for strategic or operational imperatives.

A plantation harvest plan should contain the following:

- harvest manager details;
- forest owner details;
- landowner details;
- customer details, work order numbers and timber products being harvested;
- a map of the harvest area;
- locations of plantation roads and tracks to be used and signage required;
- communication protocols to be used on site;
- emergency management protocols on site;
- the proposed harvesting system and machinery to be used for felling, processing and extraction;
- the establishment system to apply in the next rotation;
- slash management requirements from harvest;
- approximate dates during which harvesting is to occur;

- plantation haulage routes and public road haul route to timber receival facility to be used;
- fire protection preparedness, response and restrictions;
- wet weather restrictions to minimise soil damage;
- safeguards to protect significant values;
- minimum safety requirements; personal protective equipment required on site and warning notification for unannounced visitors; and
- hygiene measures preparedness, response and restrictions.

Appendix 2: Plantation Timber Haulage Notification to Local Governments and Other Road Managers

Introduction

Local governments and other road managers are seeking an assurance from plantation managers that the haulage of wood products does not adversely affect local roads within their control. They also seek to minimise conflicts with other road users.

Plantation managers are seeking to utilise the safest and most effective truck configuration for haulage to achieve maximum economy and to limit the number of truck movements on any road.

It is therefore important that a process be put in place that will enable the local road system to be managed in a coordinated and safe manner that enables issues of concern to all parties to be addressed in a timely and efficient way. It is considered that this can best be done by establishing a uniform, documented approach to the planning and implementation of mutually agreed actions.

It is the responsibility of the plantation manager or harvesting manager to complete all sections of the attached forms included in the Haulage and Haul Road (Route) Agreement and add any additional information required by the road manager. On reaching agreement for the haul route and the truck configuration, the plantation manager is to ensure copies of the signed document are given to each party, including the harvest or haulage contractor as specified in the plantation harvest plan.

This document forms part of the plantation harvest plan.

The post-harvest-inspection part of the form is necessary for the completion of the job and will form the basis for future trust and confidence between local governments, other relevant parties and the plantation industry. It will also facilitate cooperative negotiations on other haul routes.

Notification of Intention to Harvest and Haul

The process requires notification to be given to enable decisions to be taken by the relevant parties at appropriate stages both before and after the harvest taking place.

For example, notification is important for local government and/or road managers budgetary purposes, and to ensure the timely inspection of the condition of local roads that form part of haulage routes.

Primary Notification (Appendix 2A)

A primary notification to local authorities will be provided 18 months in advance.

This is intended to assist local governments and/or road manager to plan so that their works programs and budgets take account of any works associated with harvesting and to work with the plantation manager in resolving any issues of mutual concern.

Secondary Notification

The secondary notification to local authorities and/or road managers must be given when applying for multi-combination-vehicle permits prior to harvest operation commencement. Should vehicles not requiring special permits be used for the haulage operation, the harvest manager should advise the relevant local authority as a matter of courtesy. An example of the local authority agreement can be found in Appendix 2B.

The purpose of the secondary notification is to:

1. Confirm the commencement date for harvesting.
2. Enable the local government and the plantation manager or harvesting manager to complete a report on the state of the local roads being used for harvest haulage purposes.
3. Agree on the arrangements to be put in place to facilitate the haulage being undertaken in a safe and efficient manner.
4. Permit any other nominated agency to undertake an inspection of the haul route; e.g. MRWA.

Harvesting under Abnormal Circumstances

In the event of a natural disaster (wind, fire or disease) that causes damage to all or part of a plantation, making it necessary to salvage the crop, the plantation manager should notify the local government and/or road manager as soon as possible to make arrangements for the salvage process.

Post-harvest Notification

The post-harvest notification is for ensuring that the local government and/or road manager and the plantation manager undertake an inspection of the road immediately following the harvest and, where necessary, to rectify any extraordinary damage caused to the local roads by the haulage operation

Photographs could be taken to record the condition of the roads before and after haulage operations.

Notification Examples

The notifications provided in Appendix 2A and 2B are minimum requirements and should be used as a guide. Certain local authorities will have their own notification templates and these should be used when available.

Appendix 2A: First Notification to local governments

Chief Executive Officer

Address

For the attention of:

Dear,

SUBJECT: Notification of Intention to Harvest and Haul Logs on Shire Roads.

In accordance with the 'Code of Practice for Timber Plantations in Western Australia', *company name* herewith submits the *company name* haulage operations within the shire for the calendar year(s).

Please note that the list of plantations and subsequent roads are not definitive as throughout the year other growers may request harvest for various reasons outside the control of *company name*. Some of the plantations listed may not be harvested as indicated due to reasons both within and outside of *company name's* control. Consequently, this is the best estimate of those plantations likely to be harvested during the calendar year(s).

In most cases, *company name* will be seeking shire endorsement for the operation of multi-combination haulage (MCV) vehicles (pocket road trains, B-Double and truck and trailer configurations) to make the best economics of the haulage operation. In each instance, *company name* will consult with the shire before haulage operations and come to an agreement on the conditions for permits for the vehicle usage.

A *company name* representative will be in contact with your nominated representative to carry out pre-haulage inspections of shire controlled roads. Shire endorsement of conditions of haulage on these roads is required before Main Roads will issue a permit for MCV operations. *Company name* will be employing experienced contractors to carry out harvesting and haulage operations. Contractors will operate licensed, permitted MCVs with accredited drivers and documented operating systems. *Company name* will remain the responsible entity for conditional use of the shire roads, and as such, will sign off against the operating conditions of the permitted usage.

We trust that this assists your Shire on the planning and implementation of road works programs. Should you require any further information, please contact _____ on _____.

Yours sincerely,

Appendix 2A: First Notification to local governments

Shire of					
Notification of Haulage for 200...					
Plantation name	Location Number	Harvest Area (ha)	Total Harvest Volume (tonnes)	Haul Route	Approximate Timing

Appendix 2B: Haulage and Road (Route) Agreement

HAULAGE AND ROAD (ROUTE) AGREEMENT

Local Government: _____

Haulage and Haul Road (Route) Agreement

1. Plantation Name _____
2. Date of Inspection _____
3. Destination _____
4. Contractor (1) _____ (2) _____
5. Total Tonnes to be Harvested _____ Tonnes
6. Proposed Commencement Date _____
7. Duration of Operation _____
8. Delivery Schedule _____ per day
9. Type of Truck Configuration _____

Description of proposed haul routes and present status

Name of Road	Current Status (Class)	Comments

Agreement on Haul Route _____ Contractor
_____ Local Government
_____ Plantation Manager

11. Works to be undertaken prior to haulage

Name of Road	Plantation Manager	Local Government

12. Extra mass permit required _____ Yes/No

13. Date received and sighted _____

14. Other known road users

Names	Type	Details of Interaction including Timing	Notify: Yes/No

15. Post-harvest inspection report

Name of Road	Condition Now	Works Required	By Whom?

Works completed _____ exit _____ Yes/No

Completed and exited:

_____ Contractor _____ date
 _____ Local Government _____ date
 _____ Plantation Manager _____ date

Appendix 3: Aerial Spray Application Management Plan

1. Preamble

The plantation forest industry recognises that aerial application of pesticides to plantations might pose a threat to sensitive industries (e.g. fish farming, viticulture and berry farming) that occur adjacent to or near plantations targeted for spraying. However, it should be recognised that an outbreak of insect pests in a plantation has the potential to severely reduce growth and may cause mortality of the trees.

The objective of this management plan is to set the guidelines for the safe use of pesticides in plantations such that a owner/manager of a sensitive property, and other stakeholders are aware of the process that a target site owner/manager will follow before initiating action to control insect pests by aerial spraying.

The specifications for the application of pesticides by air will be documented in the attached *Field Specifications for Aerial Application of Insecticides to Plantations Located Adjacent to a Sensitive Property* (hereafter known as the field specifications).

The nature of plantations once they reach a height of eight metres or more precludes the use of ground-based equipment to apply pesticides. Aerial spraying is the only available technology that offers a viable means of controlling pest-insects in plantations. The plantation industry along with all other dry land farmers recognises the shortcomings of this technology and is actively researching alternative technologies.

The pesticides selected by the industry are those that are commonly used by other primary producers and have been shown to be extremely effective against the target insects. Only pesticides that are registered or subject to an off-label permit (issued by the National Registration Authority) for forest use will be used.

The plantation industry will take all precautions to avoid drift that might impact on neighbouring properties. The owner or manager of the target property will respond to genuine concerns from all neighbours and take tangible actions to avoid impacts on all neighbours. However, a target property owner/manager retains the right to act, within the constraints of legislation governing the application of pesticides by air, to take any action necessary to prevent damage to his or her plantation by insects (refer to The 'Breaches of Code' section, Disputes).

This plan will be adopted by all growers in the plantation industry and should form the basis for adoption by other industries that apply pesticides by air. This document will provide the guidelines for notification, liaison and the negotiation process with neighbours of target properties to ensure all genuine and sensitive issues are addressed in a consistent and acceptable manner.

2. Notifications

The requirements of the plantations industry to notify neighbours of an intended aerial spraying operation will follow a tiered approach as follows:

2.1 Standard Notification

This to be provided to the neighbour by the owner or manager of a target property no less than two weeks and no more than three months from the date that application of pesticide is anticipated. A written standard notification will be sent to each neighbour by mail or facsimile.

The standard notification will include:

- a preamble or overview of the insect problem, nature of the damage and likely impact on the tree crop;
- the identity of the target property;
- a description of insect pest;
- the identity of pesticides proposed for use;
- an estimate of the date of application; and
- weather conditions, including wind direction and speed, under which application is proposed.

The standard notification will invite concerned neighbours and owners of sensitive properties to contact the target property owner/manager for more information.

Simple agreements in relation to areas to be sprayed, wind direction and wind strength may be reached between the neighbour and the target property owner/manager following a standard notification.

2.2 Field Specifications

A field specification sheet (attached) is designed for a neighbour with a sensitive property. The field specifications will be prepared by the target property owner/manager following consultation with the owner or manager of a sensitive property and input from the pilot, with the primary objective of ensuring that sensitive activities on the property are not affected by spray drift. This approach will also ensure the owner or manager of a sensitive property is aware of planned spray activities, has an opportunity to comment on the development of the spray plan and can take any precautionary measures they choose.

The field specification must include the following detail:

- Section 1: Details of parties involved in the development of the field specifications.
- Section 2: Application conditions, including chemicals to be used, weather conditions, field communications and special protective measures.
- Section 3: Record of application.

An owner or manager of a sensitive property who does not share a boundary with the target property may request a field specification be developed if, in the view of the sensitive property owner/manager, there is a risk posed by the aerial application of pesticides to an activity on his or her property. The onus is on the sensitive property owner/manager to request the development of a field specification

A register of sensitive properties at a district or local government level will allow a target property owner/manager to easily identify such properties. The maintenance of the register should be the responsibility of each local government.

2.3 Provision of Additional Information

Plantation growers will provide information to neighbours on request, which may include the following:

- material safety data sheets for pesticides and additives;
- relevant information from the department of health;
- information on insect pests of plantations;
- information on the efficacy of spray operations and impact of pesticides on both pest and beneficial insects;
- information on the impact of pest insects on plantation growth;
- data on aerial spray drift and appropriate management options; and
- tolerance levels for activities sensitive to pesticides.

2.4 Pre-application Contact

The owner or manager of the target property must make reasonable attempts to contact all neighbours and owners or managers of sensitive properties, by personal visit or phone, no less than 24 hours before an impending aerial spray operation.

Neighbours may choose to be excluded from a 24-hour notification. In this event a record of the arrangement must be kept by the target property owner/manager.

If the owner or manager of a sensitive property cannot be contacted, the matter should be referred to the Regional Protection Manager at the DAFWA who should be invited to observe the operations to ensure compliance with the field specifications.

3. Standards for the Application of Pesticides

3.1 Prescriptions

The plantation industry will develop standard prescriptions for the application of pesticides by aircraft that comply with accepted good practice and statutory requirements.

3.2 Pilot Accreditation

Aerial spraying contractors and pilots are to be accredited under the AAAA Operation Spraysafe scheme, and pilots must hold a current licence issued under the *Aerial Spraying Control Act 1966*.

3.3 Wind Speed

Aerial spraying will be carried out at wind speeds of 5 to 15 kph with maximum gusts up to 20 kph.

3.4 Public-drinking-water Source Areas

In PDWSAs: *Statewide Policy No. 2 Pesticide Use in Public Drinking Water Source Areas*.

(See drinkingwater.environment.wa.gov.au. Select Publications > Policies.)

4. Disputes

Where the field specification prepared by the target property owner is not considered by the owner or manager of a sensitive property to comply with the *Code of Practice for the Use of Agricultural Chemicals in Western Australia*, the sensitive property can refer the matter to the Regional Protection Manager, DAFWA for arbitration.

When a neighbour or a member of the community has reason to believe that they have been adversely affected by aerial spraying they may fill out an Agricultural Spray Incident Report Form available from local government and DAFWA Offices.

Guidelines for Plantation Fire Protection



Bush Fire and Environmental Protection Branch



Bush Fire and Environmental Protection Branch

Fire and Emergency Services Authority of Western Australia

These guidelines replace the 2001 'Guidelines for Plantation Fire Protection'. They have had a wide and varied input base, and the Fire and Emergency Services Authority (FESA) thanks all who contributed.

© 2011 Fire and Emergency Services Authority of Western Australia

480 Hay Street, Perth, Western Australia, 6000

Authors: Jade Leask and Ralph Smith

ISBN: 978-0-9806116-8-7

Disclaimer

The information contained in this publication is provided by the Fire and Emergency Services Authority (FESA) voluntarily as a public service. This document has been prepared in good faith and is derived from sources believed to be reliable and accurate at the time of publication. Nevertheless, the reliability and accuracy of the information cannot be guaranteed and FESA expressly disclaims liability for any act or omission done or not done in reliance on the information and for any consequences, whether direct or indirect, arising from such act or omission.

This publication is intended to be a guide only and readers should obtain their own independent advice and make their own necessary inquiries.



Bush Fire and Environmental Protection Branch

FESA
Fire & Emergency Services
Authority of Western Australia

Guidelines for Plantation Fire Protection

Objective	2
Introduction	2
Endorsement	2
1. Implementation.....	2
1.1 Local Government	3
1.2 Plantation Managers.....	3
2. Planning for Plantation Fire Management.....	3
2.1 External Fire Breaks and Setback Distances.....	3
2.2 Fuel Reduction	4
3. Fire Management Plans.....	5
4. Plantation Fire Protection Specifications	6
4.1 Compartment Size and Layout.....	7
4.2 Fire Breaks and Access.....	7
4.3 Water Supplies.....	9
5. Equipment and Training	10
5.1 Equipment	10
5.2 Training.....	10
6. Harvesting and Post Plantation Management.....	11
6.1 Harvesting	11
6.2 Post plantation management	11
7. Plantation Species	11
Appendix 1—Plantation Species Information.....	13
Eucalyptus globulus (Tasmanian blue gum).....	13
Eucalyptus species for high value sawlogs.....	15
Australian Sandalwood (<i>Santalum spicatum</i>).....	17
Irrigated Tropical Indian Sandalwood (<i>Santalum album</i>)	18
Pinus species— long term crop	19
Mallee species (short term rotation – for harvest).....	21
Mallee – CFI/Kyoto compliant plantings	22
Mallee – CFI/Kyoto compliant plantings	24
Appendix 2—Plantation Map Legends	26
Appendix 3—Water Supply Requirements	28
Appendix 4—Glossary.....	30
Acronyms	32



Objective

These guidelines will provide both local government and the plantation industry with a set of best practice fire protection standards for plantations that aim to protect human life and local community interests, while minimising fire risk to plantation assets.

Introduction

The nature of plantations has changed significantly in recent years with the diversity in species production and the expansion in the location of plantations.

The development of new products for timber and trees, as well as improved silvicultural techniques has seen the number of plantations in Western Australia increase.

The competing needs of protecting the community and of the plantations have been considered in the development of these guidelines. However, the protection of local communities from bush fires is the most important consideration. To achieve this balance Local Government (LG), the Fire and Emergency Services Authority (FESA) and plantation managers will continue to work closely together.

Tree plantings are considered as a legitimate rural land use activity. These guidelines reflect the changing needs of the plantation industry in Western Australia and aim to identify the appropriate fire protection requirements that will benefit the whole community. However, it is acknowledged that one set of criteria will not meet the needs of all the various plantation types.

Endorsement

FESA and the Western Australian Planning Commission (WAPC) endorse these guidelines and encourage local authorities to adopt them either by statutory or non-statutory means.

These guidelines have been reviewed and agreed upon by FESA and the Forest Industries Federation of Western Australia (FIFWA). FESA endorses the application of industry-based code of practices including the *Code of Practice for Timber Plantations in Western Australia*¹ and the *Mallee Cropping Code of Practice*.

1. Implementation

These guidelines are designed to be minimum standards that can be tailored, responding to local risk and local government requirements.

If there is a disagreement between the plantation manager and the local government regarding fire standards, during the plantation planning approvals process, a FESA representative should be contacted for further advice.

¹ Produced by the Forest Industries Federation of Western Australia.



1.1 Local Government

A statutory ability for the Local Government (LG) to consider the impact of plantations and implement provisions of these guidelines may be achieved by their inclusion in a town planning scheme. This could be by a policy statement and/or the consideration of tree plantations as a development requiring Local Government determination through town planning schemes.

Local Governments are encouraged to have consistency in their adoption of these guidelines. Variation from the guidelines may be appropriate if, after consultation, the LG can clearly demonstrate that local conditions require specific management.

The LG will clearly advertise the restricted and prohibited burning times, as well as fire break requirements, in their Annual Fire Break Notices.

1.2 Plantation Managers

It is the responsibility of the plantation manager to implement conditions outlined in their plantation fire management plan.

Fire management plans must adhere to environmental standards as outlined in the *Code of Practice for Timber Plantations in Western Australia*.

Plantation managers must make themselves aware of the bushfire zone that the plantation is in, and note the restricted and prohibited burning times for each zone as instructed by the LG and comply with the LG Annual Fire Break Notice.

All plantation managers must adhere to and consult legislative requirements relating to plantations in Western Australia.

Plantation managers must adhere to these guidelines as a basic fire management document.

2. Planning for Plantation Fire Management

When planning and establishing a plantation fire management is an integral part of the process and measures to reduce the fire risk must be considered at the earliest possible stage, this is likely to occur when choosing the location or designing the site. Plantation managers must take into consideration all risks associated with the site such as community values, site-specific requirements, existing land use and the desired plantation species.

2.1 External Fire Breaks and Setback Distances

The main aim of the planning process is to ensure that there is no added risk to existing or proposed structures by the location of the plantation. This is often achieved by applying appropriate setback distances in the area plan for the plantation.

Therefore sites for plantations should be chosen carefully keeping in mind the following:

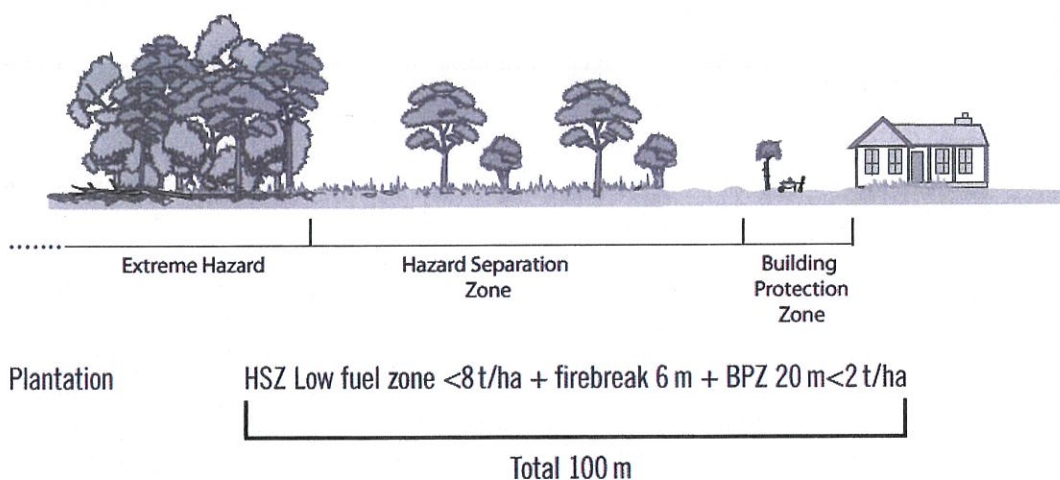
- Plantation separation distances must reflect potential fire behaviour driven by local variations in topography, aspect and slope. The hazard separation zone:
 - between the plantation and an existing or approved habitable building must be a minimum of 100 metres, unless the building has been constructed to an appropriate higher standard.
 - between the plantation and an existing or approved non-habitable structure (i.e. sheds and enclosed storage areas) must be a minimum of 50 metres.

- Plantations developed within one kilometre of the boundary of any local development² may be required to provide additional fire protection measures as determined by the LG.
- Plantation managers are responsible at the time of development for separation distances between existing and approved buildings. Compliance with separation distances will apply for the life of the plantation until a change in land use has been registered.

Buildings or structures constructed after approval and establishment of the plantation becomes the responsibility of the planning approvals process to ensure that those buildings are constructed to the appropriate standard.³ Buildings constructed after the establishment of the plantation should not adversely affect the plantation. Compliance with separation distances will occur at time of plantation development and will be appropriate for the life of the plantation until a change in land use has been registered.

- Early and regular consultation with the relevant LG is essential in identifying any local fire regulations in place that will effect the establishment of a plantation, such as the Annual Fire Break Notice.

Hazard Separation Zone Distances.



2.2 Fuel Reduction

Where native forest or remnant vegetation is located adjacent to or within a plantation fuel reduction is encouraged, where possible, before planting. It is recommended that plantation managers, where possible and subject to environmental constraints, consider maintaining all non-plantation vegetation at less than eight tonnes per hectare. It is important that consideration is given to fuel reduction and other management techniques to reduce the risk of unplanned fire.

There are a number of factors that increase the risk of fire including:

- Permanent landscape features.
- Local and site specific conditions may provide decreased/increased fire risk.
- Harvesting techniques.
- Management regimes.
- Surrounding natural vegetation.
- Internal remnant vegetation.

² Refer to Appendix 4 for a definition of local development.

³ Appropriate standard refers to the relevant Bushfire Attack Level as determined by Council under AS3959 (2009) Construction of Buildings in Bushfire Prone Areas (as amended) and any other relevant Building regulations that apply.



Managing fuel loads in plantation areas and along fire breaks can be achieved by:

- Controlled grazing.
- Ploughed strips.
- Slashed strips.
- Clearing and heaping.
- Chopper rolling.
- Mechanical mulching and grinding.
- Weed control e.g. herbicide sprays.
- Prescribed burning.
- Whole tree harvesting.

Pruning and thinning are commonly used silvicultural techniques, however they are likely to increase available fuel loads until the residue generated from these activities naturally breaks down, is burnt or physically removed.

3. Fire Management Plans

It is vital that all plantations have a Fire Management Plan. The plantation manager must submit a plan for each plantation development project to the LG with the initial planning application.⁴

The plantation manager must advise the LG of any updates to Fire Management Plan or annual works programs throughout the life of the plantation.

The Fire Management Plan, as detailed within these guidelines or as per Australian Forestry Standard 4708, must include:

- a) Land owner and/or occupier information such as identification of the plantation company and all relevant contact details, including a 24 hour fire contact phone number.
- b) Contact details of local fire control agencies.
- c) A firefighting equipment register and details of any cooperative arrangements.
- d) Plantation species, area and layout including compartment size.
- e) Fire protection measures such as:
 - Fire detection and reporting mechanisms.
 - Initial response and attack of fires, including resource dispatch and communication with relevant authorities (e.g. FESA, LG and local fire brigade).
 - Identify potential ignition sources.
 - Access in and around the plantation.
 - Access roads must be clearly signed.
 - Methods of firebreak maintenance.
 - Measures to protect services e.g. power lines and gas pipelines.
 - Water supplies and approximate capacities of these supplies.

⁴ *Code of Practice for Timber Plantations in WA*—‘plantation managers may require Town Planning approval for plantations prior to settlement, in such cases; the plantation manager will submit draft plantation management plans, until gaining the necessary approvals.’



- Surrounding vegetation type, age since last burnt and if the site is being effectively managed, if available.
 - Sites fire history, where available.
 - Harvesting procedures and other measures used to reduce hazards (e.g. slashing and thinning programs).
 - Fuel reduction program, if applicable, including herbicide weed control and controlled grazing.
- f) Surrounding local features including:
- Existing plantations.
 - Proximity to towns/settlements.
 - Remnant vegetation.
 - Significant values relevant to the site.⁵
- g) Provision of a map at a suitable scale:
- Plantation maps must be provided to the LG and to FESA, and provide additional maps if requested by FESA or LG.
 - These maps are to be held in suitable containers and clearly sign posted at the main property entrances or other LG approved locations for use by personnel attending a fire.
 - Plantation managers must check and update these maps annually to ensure their quality and accuracy, dates on the maps may assist with this.
- h) Fire management maps will indicate:
- Compartment boundaries and size.
 - Water supplies including irrigation channels and dams.⁶
 - Emergency access/egress (fire breaks).
 - Structures houses, sheds etc.
 - Significant features e.g. creek crossings, dead end access tracks, areas of remnant vegetation.
- i) Standardised map legends are to be applied across the plantation industry.⁷

4. Plantation Fire Protection Specifications

Plantation access for fire management and suppression must be appropriate to ensure that the local community is not placed at an increased risk of fire from any plantation establishment. Consider fuel reduction and other management techniques to reduce the risk of unplanned fire.

It is essential to carefully consider the design of a plantation to reduce the effects of fire. Plantation managers must look at design elements, including the plantation layout and firebreak construction, to limit potential fire run and reduce the likelihood of wind and water erosion, while providing suitable emergency services access.

⁵ This may include declared rare flora, historical sites, cultural and community sites. Contact your LG for more information.

⁶ Refer to Appendix 3 for more information on water supplies.

⁷ Refer to Appendix 2 for an example of standardised map legend items.



4.1 Compartment Size and Layout

There are certain plantation species and different stages of plantation lifecycles that can create an increased fire risk. The compartment size and layout will consider the highest predicted fire risk and mitigate against the risk through proper planning and fuel load management.

- Compartments should be no larger than 30 hectares, where possible or as prescribed by the LG.
- Compartments may be considered up to 100 hectares in size depending on local conditions, plantation species and if endorsed by the LG.
- Compartment boundaries should, where practicable, follow existing roads or natural features, to ensure ease of fire suppression and reduce soil erosion.
- Fuel load management techniques (e.g. between row slashing or grazing) should be considered when planning compartment size.
- Plantation managers should consider site topography, slope, aspect, road direction, strategic access to water and planting direction, as they relate to fire control and compartment size.
- The layout will ensure that the fire breaks are maintained sufficiently for emergency services access and to LG specified requirements.

4.2 Fire Breaks and Access

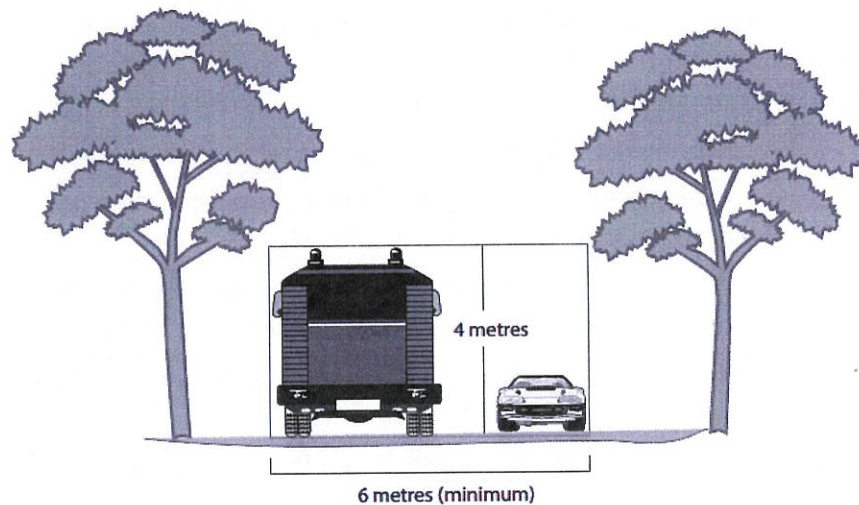
Internal and external fire breaks are required for all plantations to enable access to all areas of a timber plantation in the event of fire. Access must be provided to and into plantations to meet fire suppression requirements.¹

- Fire breaks must be maintained in line with the Annual Fire Break Notice developed by the LG.
- The planting layout must ensure vehicle access is maintained at appropriate intervals, depending on local conditions.
- Tracks should be aligned to provide straight through access at junctions, where possible.
- Fire breaks should be aligned to access remnant native vegetation areas and reliable water supplies, where possible.
- The access routes must allow one lane of traffic with passing areas, where possible.
- Passing bays are recommended to be provided at 200 metre intervals and are a minimum of 20 metres long and six metres wide.
- The minimum trafficable surface must be 6 metres, or a width appropriate to the most likely form of fire suppression vehicle.
- There must be sufficient horizontal and vertical clearance that allows vehicles to travel on access routes easily. It is recommended that the minimum horizontal clearing is six metres and the vertical clearing four metres.

¹ For more information on fire breaks refer to FESA's 'Firebreak Location, Construction and Maintenance Guidelines.'



Minimum road width and vertical clearance.



**NO
THROUGH
ROAD
150M**

- The maximum grades on fire breaks must be no greater than one in eight to ensure access by fire suppression vehicles.
- The maximum cross fall on fire breaks should not exceed one in thirty-three.
- No through roads should be avoided if possible, but if they do exist, they must be well signposted and include the distance to the end of the road. The road must have a turnaround large enough to accommodate a 2.4 rural fire appliance with a minimum inner radius of 12 metres. Road signs should be produced to comply with Australian Standard 1743 Road Sign Specifications.
- New gates must be a minimum 3.6 metres wide, established gates may remain in situ.
- The main fire breaks must be capable of a minimum load limit of 15 tonnes during the restricted and prohibited burning periods.
- No point within the plantation is to be more than 300 metres from a fire break, perimeter break, open paddock or other three metres minimum wide access to ensure all areas of the plantation are accessible with firefighting hose.
- Where power lines pass through the plantation the clearing of vegetation must be in accordance with suppliers' specifications.
- Erosion control measures should be in place to minimise degradation and maintain trafficable conditions.
- Fire break maintenance programs must take into account recognised fuel hazards.
- Fire break standards should take into account potential fire behaviour, including fuels and topography.
- Fire breaks must be regularly maintained and kept free of flammable material.
- When under the plantation managers control all plantation roads external to the plantation will comply with the general standards, where possible, as described in *Planning for Bush Fire Protection Guidelines*.

All plantations require fire breaks; however the width required may vary according to the size of the

⁹ Refer to Planting Set back distance tables in Appendix 1.



site. All fire breaks must be fuel free zones, however exemptions may be applicable for areas with erosion issues.

Refer to FESA's *Environmental Guidelines for Machine Operations and Mitigation* and *Fire Break Location, Construction and Maintenance Guidelines* for more information on machine operations such as erosion controls in fire break maintenance.

4.3 Water Supplies

Plantation managers must provide water for firefighting purposes within plantation areas. A sufficient number of water points must be established and maintained in or nearby to all plantations. These strategic water supply points will be audited by the plantation manager prior to the start of every fire season.¹⁰

The following criteria must be met to ensure adequate water supply and viability:

- 50,000 litres of water must be permanently available for initial use during fire response.
- The water supply must meet the needs of the plantation and will be referred to as a strategic water supply.
- The strategic water supply options must be a secured source for the duration of the plantation.
- The capacity and location of the strategic water supply must be commensurate with the size of the plantation, larger plantations may require several water points to be made available.
- The strategic water supply should be no further than five kilometres or a 20 minute turnaround from the plantation, whichever is most efficient.
- Where no suitable water is available on a plantation an agreement with adjoining neighbours to establish a joint strategic water supply may be needed. A written formal agreement is necessary in such circumstances between the owner/manager/occupier.
- Where water availability is limited plantation managers must have mobile water supply or other arrangements in place during the bushfire season.
- Suitable fittings must be available for all hydrant or standpipe water supplies.
- Quick fill water pumps should be considered to minimise turnaround times, ensure water suction challenges are overcome and safe separation distances are maintained during refilling.
- There must be suitable access during the relevant bushfire season maintained with a hard stand and turnaround area at all water supplies.
- Water supply facilities must be designed and constructed so that heavy duty firefighting equipment is able to access the supply.
- All water supplies are to be marked on a plantation map and signposted in the field, the standard marking of a blue 'W' in a blue circle with a white background or the word 'water' written in blue on a white background is required.
- Landowners and plantation managers are encouraged to consider special access issues if they are planning to use other means of fire suppression such as helicopters or fixed wing water bombers.

¹⁰ Start of fire season usually identified by the LG as the commencement of the restricted burning period.



5. Equipment and Training

Every plantation manager, owner and/or occupier has a legal responsibility to try and prevent fire from escaping their land in line with the *Bush Fires Act 1954*. It must be possible for them to attend a fire on their own plantation.

5.1 Equipment

- Plantation managers have a responsibility to provide adequately trained personnel for safe and effective operation of firefighting equipment, and a capability to carry out onsite fire suppression¹¹ as determined by the LG.
- Strategic Response and resource arrangements should be made available within the industry.
- Firefighting equipment must be in good working order and well maintained
- Fire suppression activities must meet the requirements of the *Bush Fires Act 1954*.
- Requirements shall not exceed other industries with similar fire risk.
- Differing operations at plantations or life cycle risk may mean additional equipment is needed.
- All harvest and road work machinery is to be fitted with an approved, serviceable fire extinguisher in line with Australian Standard 1851.1, generally the minimum requirement is a nine litre water extinguisher AS 1841.2 or a nine litre foam water extinguisher AS 1841.4 or a 4.5 kilogram dry powder extinguisher AS1841.5. This is a requirement of the *Bush Fires Act and Regulations 1954*.
- Vehicles and machinery travelling in plantations during the bushfire season must comply with Australian Standard 1687 and the *Bush Fires Act 1954* and must adhere to the requirements of Harvest Movement Bans and Vehicle Movement Bans when set by LG.
- Refueling of machinery will not occur in the planted area. A hard stand, free from flammable material, should be used where possible.
- Operators of machinery and equipment in a plantation are required to take all reasonable precautions to prevent fire escaping, for instance carrying a dry chemical fire extinguisher.

5.2 Training

- The field staff employed by the plantation manager should attend a basic fire awareness training course or an equivalent, at a minimum.
- FESA will encourage plantation personnel to join existing local brigades to foster closer working relationships with the community and surrounding plantations.
- FESA will assist in facilitating multi agency fire training and promoting cross-organisational cooperation.

¹¹ Refer to FIFWAs *Fire Season Requirements* document.



6. Harvesting and Post Plantation Management

6.1 Harvesting

Harvest and vehicle movement bans may be put in place by:

- The LG—these are mandatory restrictions;
- The plantation manager may self-impose additional bans; or
- The declaration of Total Fire Bans.

The operation of machinery must be in accordance with the conditions of any restrictions in place.¹²

When mechanical pruning, harvesting and other plantation operations are taking place during the restricted and prohibited burning periods a mobile firefighting unit must be in the plantation.¹³

The firefighting unit should remain onsite for at least 30 minutes at the conclusion of operations each day of harvest to ensure breakouts do not occur.

6.2 Post plantation management

Plantation fire management must continue until trees and post harvest debris is permanently removed. Once a plantation manager has finished with the site the land owner is responsible for general fire management responsibilities such as maintaining fire breaks, coppice and trash heaps consistent with LG requirements.

7. Plantation Species¹⁴

The plantation manager, along with personnel involved in fire protection programs; need to be aware of the changing fuel dynamics and their impact on fire behaviour in the plantation.

Most plantations have high grassy fuels for the first few years after planting, unless grass management strategies have been implemented.

- **Eucalyptus globulus.** At first harvest they are usually 10 to 12 year old plantations and can have several rotations if coppice shoots are used. Generally there is little leaf litter until the trees are close to harvest age, approximately eight to 12 years, then branches, bark and leaves can accumulate. They are self-pruning and as they mature there is separation of ground and aerial fuels, reducing opportunities for crown fires.
- **Eucalyptus sp.** Managed as long rotation premium saw logs involve a thinning regime that can raise fuel loads and may require specific management. Saw log plantations often have an earlier separation of ground and aerial fuels.
- **Australian Sandalwood (*Santalum spicatum*)** These trees are dependent on a host tree to provide nutrients and water to the target species. The ratio of host to target species may vary through the lifecycle that may affect the potential fire hazard.
- **(Irrigated) Indian sandalwood (*Santalum album*)** This is a parasitic tree that relies on a host species to establish its roots and generally has a 15 year rotation. Active pruning is usually undertaken with pruning's being mulched back into soil mounds. This is particularly applicable to plantations in northern Western Australia.

¹² Refer to FIFWAs *Fire Season Requirements* document.

¹³ Contact your LG for more information on harvesting requirements and restriction periods.

¹⁴ This section of the document will require regular review to ensure its currency and applicability.



- **Pinus sp.** At the time of harvest they are usually 20 to 30 year old plantations but may be up to 50 years old, and have a varying fuel load throughout the life of a plantation depending on management regimes.
- **Mallee Eucalypts sp.** These species that are used for oil production may take five years to produce their first harvestable timber, followed by two to three year rotations from coppicing. Mallee grown for different end use will have different growing and harvesting regimes.
- **Kyoto Compliant Forest sp.** These Mallee species are popular for long duration non-harvested carbon accounting. Often these plantings are for periods of time exceeding 80 years. The long term management of fuel in these plantings is limited due to contract restrictions and needs to be factored in at planting.
- **Other Species.** All other species will be required to meet fire break and setback clearances as per the Pinus species tables unless it can be proven alternate widths are justified due to a different fire risk.



Appendix 1—Plantation Species Information

Eucalyptus globulus (Tasmanian blue gum)

1st Rotation Fuel Description		
Lifecycle situation	Fuel Description	Fire Danger Hazard
Young plantations Up to 4 years after planting	Grassy fuels dominate	Low hazard
	Fuel load: up to 4 tonnes per hectare	
	Vulnerable to grass fires	
Developing plantations 4 to 6 years after planting	Discontinuous fuel cover	Low – Moderate hazard
	Fuel rates depend on site location	
	Fuel load: <5 tonnes per hectare	
	Canopy closure will reduce persistence of grassy fuels and wind inside plantation	
Older age plantations 7 years plus after planting	Increase in forest litter and bark	Moderate – High hazard
	Continuous fuel cover	
	Fuel load: up to 8 tonnes per hectare	
	Increase in heavy fuels >6 millimetres	
Harvested plantations 10 years after planting – up to 2 years post-harvest <i>Immediately following harvesting</i>	Accumulation of bark streamers in Eucalypt plantations	High hazard Hazard persistence dependant on: 1. fuel loading level produced at time of harvest. 2. fuel reduction program outcome. 3. rate of fuel decomposition.
	Fuel loading and arrangement will depend on harvest method: Rows of harvest slash dispersed evenly across site aligned with stumps at densities commensurate with harvest volumes. Infield slash – Fuel loads exceeding 8 tonnes per hectare (~10% of total harvest yield) with increase in heavy 'trash' fuels (>15 millimetres). or Slash accumulated at roadside (plantation perimeter) processing points in large debris piles, leaving the larger plantation area with a relatively low fuel load.	

Eucalyptus globulus (Tasmanian blue gum) (Continued)

Successive Rotation Fuel Description		
Lifecycle situation	Fuel Description	Fire Danger Hazard
Regrowth coppice plantation – 2 years post-harvest	Fine fuels (< 15 millimetres) and leaf material decomposed leaving semi decomposed limb/branch material (>15 millimetres)	Low – Moderate hazard
	Fuel load: <5 tonnes per hectare.	
	Regrowth coppice regrowth vulnerable to fire	
	Return of grasses and weeds dependent on site location	
Thinned coppice stand, 2 to 3 years post-harvest	Multiple culled stems continuous in arrangement across the site	Moderate hazard. Spike in hazard 0 to 6 months following coppice thin.
	Fuel loads 6 to 8 tonnes per hectare	
	Suspended fuels at 0.5 metres of culled material over grass weeds	
	Coppice regrowth vulnerable to fire	
Coppice stand, 3 to 4 years post-harvest	Refer to 1st rotation site information 0 to 4 years.	Refer to 1st rotation site for hazard ratings
Coppice stand 4 or more years	Refer to 1st rotation site information 4 years plus	Refer to 1st rotation site for hazard ratings
Re-established plantation post-harvest	Refer to 1st rotation site information 0 to 7 years plus for full rotation details.	Refer to 1st rotation site for hazard ratings

Fire break and setback clearances		
Species—All Eucalypts ¹⁵	Horizontal Clearance	Vertical clearance
Remnant vegetation	6 metres	4 metres
External fire break	15 metres	4 metres
Internal fire breaks	6 metres	4 metres
Dwellings and valuable property	100 metre HSZ incorporating at least a 6 metre fire break	
Western Power – Both sides from centreline		
Power – single pole support up to 33kV	15 metres	4 metres around lines
Power – double pole support 66-132kV	25 metres	5 metres around lines
Power – steel pylon support up to 330kV	35 metres	Contact service provider
Telstra – no heavy machinery to turn around on lines.		
Telephone (copper)	5 metres both sides or 6 metres total if accurately line marked	
Telephone (fibre optic)	10 metres both sides	
Water/sewer pipelines (Water Corporation)	20 metres	
Gas pipeline	30 metres easement plus additional setbacks as required by the WAPC Planning Bulletin 87 and the Department of Planning Land Use Guidelines in pipeline corridors.	

¹⁵ This table covers Eucalypt species used for chipping production, fire break requirements including but not limited to Eucalypt spp. *cladocalyx*, *globulus*, and *saligna*.

Eucalyptus species for high value sawlogs

1st Rotation Fuel Description		
Lifecycle situation	Fuel Description	Fire Danger Hazard
Young plantations up to 4 years after planting	<p>High value of final crop may justify intensive 2nd or 3rd year weed control.</p> <p>Grassy fuels sparse.</p> <p>Fuel load: <4 tonnes per hectare.</p> <p>As trees begin to dominate pasture suppressed.</p>	Low hazard
Four to 10 years after planting	<p>Fluctuating fuel loads.</p> <p>Average distance between trees increasing from 4 metres up to 8 to 10 metres.</p> <p>Grazing a viable option for fuel reduction.</p> <p>Coppice control herbicides can also reduce grassy fuel load.</p> <p>Visibility and access improved due to thinning.</p> <p>Fuel load: up to 8 tonne per hectare.</p> <p>When combined available grass fuels and leaf litter exceed 10 tonne per hectare, hazard reduction work must be undertaken.</p> <p>It is acceptable for between 20 to 40 percent of the area to be >8 tonne per hectare in any year, but the fuel load must be <5 tonne per hectare in the 300 metres to any external compartment boundary.</p>	Low – Moderate hazard
10 to 25 years after planting	<p>Slash levels reduce. Some accumulation of litter and bark (no bark streamers unless E globulus).</p> <p>Fuel reduction burning becomes possible.</p> <p>Pasture sparse when the canopy closes.</p> <p>Visibility and access good.</p> <p>No link between ground fuel and canopy.</p> <p>Fuel load: <4 tonne per hectare unless scrub layer has been able to establish.</p> <p>When combined available grass fuels and leaf litter exceed 10 tonne per hectare hazard reduction work must be undertaken</p> <p>It is acceptable for between 20 to 40 percent of the area to be >8 tonne per hectare in any year, but the fuel load must be <5 tonne per hectare in the 300 metres to any external compartment boundary.</p>	<p>Low – Moderate hazard</p> <p><i>Depending on management techniques and decomposition rates.</i></p>
Harvested Plantations	<p>Fuel loading and arrangement will depend on harvest method.</p> <p>Most harvest methods likely to leave the site clear of slash and debris.</p> <p>Excess large branches may justify heaping and burning, chipping.</p>	Low hazard



Fire break and setback clearances		
Species—All Eucalypts ¹⁶	Horizontal Clearance	Vertical clearance
Remnant vegetation	3 metres ¹⁷	4 metres
External fire break	3 metres ¹⁸	4 metres
Internal fire breaks	3 metres	4 metres
Dwellings and valuable property	100 metre HSZ incorporating at least a 6metre fire break	
Western Power – Both sides from centreline		
Power – Single pole support up to 33kV	15 metres	4 metres around lines
Power – double pole support 66-132kV	25 metres	5 metres around lines
Power – steel pylon support up to 330kV	35 metres	Contact service provider
Telstra – no heavy machinery to turn around on lines.		
Telephone (copper)	5 metres both sides or 6 metres total if accurately line marked	
Telephone (fibre optic)	10 metres both sides	
Water/sewer pipelines (Water Corporation)	20 metres	
Gas pipeline	30 metre easement plus additional setbacks as required by the WAPC Planning Bulletin 87 and the Department of Planning Land Use Guidelines in pipeline corridors.	

¹⁶ This table covers Eucalypt species used for saw log production fire break requirements

¹⁷ These fire breaks should be considered equivalent to the native bush or non-plantation bush. This is the minimum requirement unless the local government requires a wider fire break as their minimum standard for native bush fire breaks

¹⁸ Minimum requirement or as prescribed by the local government

Australian Sandalwood (*Santalum spicatum*)

Lifecycle situation	Fuel Description	Fire Danger Hazard
Young plantations Up to 4 years after planting	Grassy fuels dominate with host plant more prominent	Low hazard
First dry season	First year after planting total weed control practiced	Low hazard
2 year old	Grass growth between trees is prominent but weed control still applied to some regimes to maximise seedling development	Low – Moderate hazard
3 to 4 year old	Canopy starts to close reducing the amount of new weeds and most weeds present dying off creating some flammable material between trees	Moderate – High hazard
5 to 15 year old	Tree canopy closes and weeds reduce significantly Grazing in and under trees is generally encouraged at this stage to reduce grass hazard	Low – Moderate hazard
Harvest 15 plus years	Canopy closure is complete and grass growth is minimal. Grazing still compatible maintaining very low ground fuel levels	Low Hazard

Fire break and setback clearances		
Species—Australian Sandalwood	Horizontal Clearance	Vertical clearance
Remnant vegetation	6 metres	4 metres
External fire break	10 metres	4 metres
Internal fire breaks	6 metres	4 metres
Dwellings and valuable property	100 metre HSZ incorporating at least a 6 metre fire break	
Western Power – Both sides from centreline		
Power – Single pole support up to 33kV	7 metres	3 metres around lines
Power – double pole support 66-132kV	7 metres	4 metres around lines
Power – steel pylon support up to 330kV	Contact service provider	Contact service provider
Telstra – no heavy machinery to turn around on lines.		
Telephone (copper)	5 metres both sides or 6 metres total if accurately line marked	
Telephone (fibre optic)	10 metres both sides	
Water/sewer pipelines (Water Corporation)	6 metres	
Gas pipeline	30 metre easement plus additional setbacks as required by the WAPC Planning Bulletin 87 and the Department of Planning Land Use Guidelines in pipeline corridors.	

Irrigated Tropical Indian Sandalwood (*Santalum album*)

Lifecycle situation	Fuel Description	Fire Danger Hazard
First dry season	First year after planting total weed control practiced and irrigation on a regular (7 to 10 day) cycle. Soil and vegetation stays moist. Fuel load minimised by intensive management.	Low hazard
2 year old (Second dry season)	Irrigation cycle lengthens by the end of the dry. Soil and vegetation incl. weeds stay moist and green.	Low hazard Intensive management still undertaken to promote plantation species growth.
3 to 4 year old	Irrigation lengthens to around four to six weeks – canopy starts to close reducing the amount of new weeds, irrigation not regular enough to sustain weed prominence most weeds dying off creating some flammable material.	Low hazard
5 to 15 year old	Tree canopy closed and weeds reduce significantly.	Low hazard
Harvest 15 plus years	Harvesting usually undertaken during the dry season at 15 years old. Whole tree harvesting usually with host tree remaining on site	Low hazard

Fire break and setback clearances		
Species—Australian Sandalwood	Horizontal Clearance	Vertical clearance
Remnant vegetation	6 metres	4 metres
External fire break	10 metres	4 metres
Internal fire breaks	6 metres	4 metres
Dwellings and valuable property	50 m HSZ	
Western Power – Both sides from centreline		
Power – Single pole support up to 33kV	7 metres	3 metres around lines
Power – double pole support 66-132kV	7 metres	4 metres around lines
Power – steel pylon support up to 330kV	Contact service provider	Contact service provider
Telstra – no heavy machinery to turn around on lines.		
Telephone (copper)	5 metres both sides or 6 metres total if accurately line marked	
Telephone (fibre optic)	10 metres both sides	
Water/sewer pipelines (Water Corporation)	6 metres	
Gas pipeline	30 metre easement plus additional setbacks as required by the WAPC Planning Bulletin 87 and the Department of Planning Land Use Guidelines in pipeline corridors.	

Pinus species¹⁹ – long term crop

Lifecycle situation	Fuel Description	Fire Danger Hazard
Young plantations Up to 4 years after planting.	Grassy fuels dominate	Low hazard
	Fuel load: <5 tonnes per hectare	
	Vulnerable to grass fires	
Developing plantations shrubs and seedlings 3 to 6 years after planting	Discontinuous fuel cover	Moderate hazard
	Fuel rates depend on site location	
	Fuel load: <5 tonnes per hectare	
	Pruning undertaken	
Plantations 7 to 8 years after planting	Increase in forest litter, bark and needles	High Hazard
	Continuous fuel cover	
	Canopy closure will reduce persistence of grassy fuels and wind inside plantation	
	Fuel load: up to 8 tonnes per hectare.	
Prescribed needle bed burning	Increase in heavy fuels (>6 millimetre)	High Hazard
	Needle beds in P pinaster (only) are generally burnt at year 15 to 18 to reduce litter fuels to <12 tonne per hectare	
First Thinning 12 to 18 year old	Fuel loading and arrangement will depend on thinning method: Assuming removal of 900 stems/ha of P. radiata fuel loads; <ul style="list-style-type: none"> • 5.1 tonnes per hectare aerial needles • 1.2 tonnes per hectare branch wood • 11–20 litter 	Very High hazard dependant on; <ol style="list-style-type: none"> 1. Fuel loading level produced at time of harvest. 2. Fuel reduction program outcome. 3. rate of fuel decomposition
Second Thinning 18 to 22 year old	600 stems per hectare will be reduced to < 200stems per hectare with: <ul style="list-style-type: none"> • 6 to 7 tonnes per hectare aerial needles • 2 to 3 tonne per hectare branch wood • 25 to 30 tonne per hectare litter 	
Harvested plantations 25 to 30years	Retaining surface mulch from logging residue are significant factors in reducing the level of weed competition in second rotation plantations	Moderate – High Post thinning residue until removal / mitigation of litter fuel
Pine plantations will be pruned as required in strategic locations for fire protection and to allow easy access in the event of a fire in accordance with local government fire break notices.		

¹⁹ Pinus species includes but is not limited to *Pinus spp Radiata* and *Pinaster*



Fire break and setback clearances		
Species—Pine	Horizontal Clearance	Vertical clearance
Remnant vegetation	6 metres	4 metres
External fire break	15 metres	4 metres
Internal fire breaks	6 metres	4 metres
Dwellings and valuable property	100metre HSZ incorporating 6 metre fire break	
Western Power – Both sides from centreline		
Power – Single pole support up to 33kV	20 metres	4 metres around lines
Power – double pole support 66-132kV	30 metres	5 metres around lines
Power – steel pylon support up to 330kV	40 metres	Contact service provider
Telstra – no heavy machinery to turn around on lines.		
Telephone (copper)	5 metres both sides or 6 metres total if accurately line marked	
Telephone (fibre optic)	10 metres both sides	
Water/sewer pipelines (Water Corporation)	20 metres	
Gas pipeline	30 metre easement plus additional setbacks as required by the WAPC Planning Bulletin 87 and the Department of Planning Land Use Guidelines in pipeline corridors.	



Mallee species (short term rotation – for harvest)

Lifecycle situation	Fuel Description	Fire Danger Hazard
Young plantations Up to 2 years after planting	Grassy fuels dominate	Low hazard
	Fuel load: <5 tonnes per hectare	
	Vulnerable to grass fires Grass and weed control often undertaken	
Developing plantations 3 to 6 years after planting	Grassy fuel cover	Low Hazard
	Fuel rates depend on site location and intended product. Will be a mixture of grass and some leaf litter and fine limbs	
	Fuel load: <5 tonnes per hectare	
Plantation 6 to 10 years after planting	Continuous fuel cover, primarily of grass and leaf litter. Leaf litter will be around 2.5 to 3 tonne per hectare. Grass fuels will be around 5 tonnes per hectare unless grazed or harvested	Low – Moderate Hazard
	Planting format should prevent canopy closure within the belt and will allow harvesting of required products	

Fire break and setback clearances ²⁰

Species—Oil Mallee	Horizontal Clearance	Vertical clearance
Remnant vegetation	6 metres	4 metres
External fire break	10 metres	4 metres
Internal fire breaks	6 metres	4 metres
Dwellings and valuable property	100 metre HSZ incorporating a 6 metre fire break	
Western Power – Both sides from centreline		
Power – Single pole support up to 33kV	7 metres	3 metres around lines
Power – double pole support 66-132kV	7 metres	4 metres around lines
Power – steel pylon support up to 330kV	Contact service provider	Contact service provider
Telstra – no heavy machinery to turn around on lines.		
Telephone (copper)	5 metres both sides or 6 metres total if accurately line marked	
Telephone (fibre optic)	10 metres both sides	
Water/sewer pipelines (Water Corporation)	6 metres	
Gas pipeline	30 metre easement plus additional setbacks as required by the WAPC Planning Bulletin 87 and the Department of Planning Land Use Guidelines in pipeline corridors.	

²⁰ If in an Integrated agroforestry situation external firebreak refers to the boundary of the combined agro forest and not individual belts.

Kyoto Compliant Plantings basal area <5m²/ha or a canopy >2metre tall and cover up to 20 percent at maturity over cadastral area Various Mallee Species.²¹

Indicative Planting format – Tree belts 10 metres wide, with three rows, 3 metres apart plus 2 metres for future overhang which results in a basal area at maturity of <5m²/ha.

Belts will be over 100 metres apart (centre to centre) which provides an effective minimum of 90 metres between belts.

Belts will be a maximum of 1000 metres in length before a six metre wide break is established.

Mallee – CFI/ Kyoto compliant plantings

Lifecycle situation	Fuel Description	Fire Danger Hazard
Young plantations Up to 2 years after planting.	Grassy fuels dominate Fuel load: <5 tonnes per hectare Vulnerable to grass fires Grass and weed control required	Low hazard
Developing plantations 3 to 6 years after planting	Grassy fuel cover Fuel rates depend on site location and will be a mixture of grass and some leaf litter and fine limbs Fuel load: <5 tonnes per hectare	Low hazard
Plantation 6 to 10 years after planting	Continuous fuel cover, primarily of grass and leaf litter. Leaf litter will be around 2 to 3 tonne per hectare Grass fuels will be around 5 tonne per hectare unless grazed or harvested.	Low hazard
	Planting format will prevent canopy closure within the belt	
	Continuous fuel cover, primarily of grass and leaf litter. Leaf litter will be greater than 3 tonne per hectare Grass fuels will be around 5 tonne per hectare unless grazed, harvested or out competed. When combined available grass fuels and leaf litter exceed 10 tonne per hectare hazard reduction work must be undertaken It is acceptable for between 20 to 40 percent of the area to be > 8 tonne per hectare in any year, but the fuel load must be < 5 tonne per hectare in the 300 metres to any external compartment boundary.	
	Planting format will permit canopy closure within the belt. When this occurs the fuel accumulation rate will increase.	
Plantation greater than 10 years after planting		Moderate hazard unless fuel loads are reduced

²¹ Species can include Blue leaf and York gum, *Eucalyptus loxophleba* sub species *lissophloia* and *Eucalyptus kochii* sub species *plenissima*, *Eucalyptus polybractea* and/or any other species used for carbon pollution reduction scheme plantings.

Fire break and setback clearances		
Species—Mallee	Horizontal Clearance	Vertical clearance
Remnant vegetation	3 metres ²²	4 metres
External fire break	3 metres ²³	4 metres
Internal fire breaks	3 metres	4 metres
Dwellings and valuable property	100 metre HSZ incorporating a 6 metre fire break	
Western Power – Both sides from centreline		
Power – Single pole support up to 33kV	7 metres	3 metres around lines
Power – double pole support 66-132kV	7 metres	4 metres around lines
Power – steel pylon support up to 330kV	Contact service provider	Contact service provider
Telstra – no heavy machinery to turn around on lines.		
Telephone (copper)	5 metres both sides or 6 metres total if accurately line marked	
Telephone (fibre optic)	10 metres both sides	
Water/sewer pipelines (Water Corporation)	6 metres	
Gas pipeline	30 metre easement plus additional setbacks as required by the WAPC Planning Bulletin 87 and the Department of Planning Land Use Guidelines in pipeline corridors.	

²² These fire breaks should be considered equivalent to the native bush or non-plantation bush. This is the minimum requirement unless the local government requires a wider fire break as their minimum standard for native bush fire breaks

²³ Minimum requirement or as prescribed by the Local Government.



Kyoto Compliant Plantings Carbon Farming Initiative (basal area >5m²/ha or a canopy cover up to 40 percent at maturity over cadastral area) Various Species²⁴

Indicative Planting format – Rows two metres apart with four metres between pairs or any other planting format which results in a basal area at maturity of >5 m²/ha. Tree spacing will be 2.2 metres between trees. Planting density of 1500 spha with an anticipated 80 percent success rate = 1200 spha.

Mallee – CFI/Kyoto compliant plantings

Lifecycle situation	Fuel Description	Fire Danger Hazard
Young plantations Up to 2 years after planting	Grassy fuels dominate	Low hazard
	Fuel load: <5 tonnes per hectare	
	Vulnerable to grass fires Grass and weed control required	
Developing plantations 3 to 6 years after planting	Grassy fuel cover	Moderate hazard
	Fuel rates depend on site location and will be a mixture of grass and some leaf litter and fine limbs	
	Fuel load: <5 tonnes per hectare	
Plantation 6 to 10 years after planting	Continuous fuel cover, primarily of grass and leaf litter. Leaf litter will be around 2 to 3 tonne per hectare Grass fuels will be around 5 t/ha unless grazed or harvested	Moderate hazard unless fuel loads are reduced
	Planting format will result in canopy closure within the plantation	
	Continuous fuel cover, primarily of grass and leaf litter Leaf litter will be greater than 3 tonne per hectare Grass fuels will be around 5 tonne per hectare unless grazed or harvested When combined available grass fuels and leaf litter exceed 10 tonnes per hectare hazard reduction work must be undertaken It is acceptable for between 20 to 40 percent of the area to be > 8t/ha in any year, but the fuel load must be < 8 tonnes per hectare in the 300 metres adjacent to any external compartment boundary. Planting format will permit canopy closure across the site. When this occurs the fuel accumulation rate will increase.	
Plantation greater than 10 years after planting		High

²⁴ Species can include Blue leaf and York gum, *Eucalyptus loxophleba* sub species *lissophloia* and *Eucalyptus kochii* sub species *pleniissima*, *Eucalyptus polybractea* and/or any other species used for carbon pollution reduction scheme plantings.



Fire break and setback clearances		
Species—Mallee	Horizontal Clearance	Vertical clearance
Remnant vegetation	6 metres	4 metres
External fire break	10 metres	4 metres
Internal fire breaks	6 metres	4 metres
Dwellings and valuable property	100 metre HSZ incorporating a 6 metre fire break	
Western Power – Both sides from centreline		
Power – Single pole support up to 33kV	7 metres	3 metres around lines
Power – double pole support 66-132kV	7 metres	4 metres around lines
Power – steel pylon support up to 330kV	Contact service provider	Contact service provider
Telstra – no heavy machinery to turn around on lines.		
Telephone (copper)	5 metres both sides or 6 metres total if accurately line marked	
Telephone (fibre optic)	10 metres both sides	
Water/sewer pipelines (Water Corporation)	6 metres	
Gas pipeline	30 metre easement plus additional setbacks as required by the WAPC Planning Bulletin 87 and the Department of Planning Land Use Guidelines in pipeline corridors.	



Appendix 2—Plantation Map Legends²³

Water Features

Watercourse—Perennial



Watercourse—Non-Perennial



Lake, artificial lake, natural pool perennial



Lake, natural pool non-perennial; Claypan non-perennial



Swamp perennial; swamp non-perennial



Marsh area



Coastline



Spring; Water hole



Tank; Well; Bore



Hydrant; Standpipe



Windmill; Windmill with tanks, well or bore



Permanent water point



Water Point—Helicopter

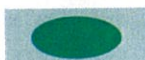


Dam; Earth dam; Dam mall



Land and Vegetation Information

Park/Reserve (with prepared ground)



Forest Estate



Forest Park



National Park



Bushland



Orchard or Vineyard



Plantation



Road and Rail Information

Two or more lanes sealed



Two or more lanes unsealed



One lane sealed



One lane unsealed



Track



Restricted public access



²³ Subset Legend information from South-West Emergency Services Directory, Department of Environment and Conservation, 2008.

Road and Rail Information (Continued)

DEC management access only

Fire access track

Strategic fire break

Rural street address

Railway line

Station, siding

DRA: Two or more lanes sealed²⁴

DRA: Two or more lanes unsealed

DRA: One lane sealed

DRA: One lane unsealed

DRA: Track

Road bridge

Culvert footbridge

Mine area, quarry; Minesite

Gate

Earthworks

Transmission line

Building

Gas pipeline; Main line valve

Homestead, Farm, Isolated Building Name
'Marilla Homestead'

Heliport

LPG Gas Cylinders

Loading Ramp

Boundary Information

Local Government

Pastoral lease

Pastoral lease name

Regional park

Disease Risk Area (DRA)

²⁴ DRA: Disease Risk Area—any area of public land where the DEC considers that the earth, soil or trees may be, or may become infected with a forest disease, and constituted as such by the Governor. Access within DRA is restricted to certain roads and tracks only and may be controlled by signs, gates or other structures.



Appendix 3—Water Supply Requirements

Water Point Locations

Water points will be established at the best possible permanent water source available, this could be anything from a dam, to an irrigation channel. However the location will also consider:

- **Safety.**
- **Maintenance and easy location.**
- **Response time.**

Site Selection

The following points will be considered when selecting the location for a water point:

- **Permanency:** to be effective, water will be available year round.
- **Soil type:** choose clay type soils to prevent loss by seepage.
- **Entry/Egress:** avoid construction of water points on blind corners.
- **Manoeuvring room:** sufficient room for trucks to manoeuvre, especially at night, will be available.

Standpipe

Where static water supplies are provided through a standpipe the following criteria are recommended:

Location

Standpipes should be located to allow any vehicle using the standpipe to leave the road/track completely, and not restrict traffic flow and visibility.

Standpipe Construction

Standpipes should be of sound construction, and withstand a load of 150 kilograms at the pipe outlet without visible deformation of the structure.

Standpipes should be equipped with a metal stop valve at 1.5metres above surrounding surface level. Two metres of flexible hose of appropriate diameter should be fitted to the discharge pipe outlet.

Capacity

The minimum discharge should be 450 litres per minute.

The minimum discharge pipe diameter should be 75 millimetres.

Access

A vehicle hard standing area should be constructed between the edge of the road/track and the standpipe to a minimum length of 25 metres. These hard standing areas should be made to the same standard as the adjoining roadway, recommended to have a minimum compacted thickness of 200 millimetres at a compaction rate of 95 percent MDD.

Consideration should also be given to helicopter access and water points being identified onsite, as well as any possible surrounding areas.



Hydrants

If a reticulated water supply is available, a hydrant to Water Corporation specifications can be installed to satisfy this standard. The minimum flow required is 450 litres per minute.

Refer to the FESA guidelines available at www.fesa.wa.gov.au for more information regarding static water supplies.





Appendix 4—Glossary

Agro forestry

A land management process which allows the simultaneous production of trees and traditional agriculture products on the same unit of land, with a block size greater than one hectare (also referred to as Integrated Agro forestry).

Building Protection Zone

Low fuel area immediately surrounding buildings.

Cadastral Area

Parcel of land relating to the records of cadastre (the public register showing details of ownership).

Compartment

A subdivision of a plantation area for fire control or management purposes.

Farm Forestry

Farm Forestry Includes any trees on farm land which are managed to produce saleable products such as timber, oil, tannin, charcoal or carbon credits. Also includes the commercial management of native forest greater than one hectare on farms.

Fire Break

Any natural or constructed discontinuity in a fuel bed used to segregate, stop and control the spread of a bushfire or to provide a fire line from which to suppress a fire.

Fire Management

All activities associated with the management of fire on plantation properties, including the use and exclusion of fire to meet objectives.

Fire Management Plan

Specified procedures for preventing and controlling fires in plantations.

Fire Suppression

All activities associated with controlling and extinguishing a fire.

Habitable Building

Any building of Classes 1-9 in the Building Code of Australia used as a dwelling or workplace.

Hazard Separation Zone

Fuel reduction area between a fire hazard and the associated buildings that require a building protection zone. When combined with a building protection zone is required to be of sufficient width to ensure that all habitable buildings are located at least 100 metres from the identified bushfire hazard.



Local Development

All land and approved development within a residential, commercial, industrial, semi-rural zone (i.e. special rural/rural residential), special or additional use zone, or similar, plus any approved non-rural based development (i.e. tourist accommodation) within a rural zone, in addition to land identified within a local planning strategy or scheme where such development is likely.

Low Fuel Areas

Any area where fuels have been modified/reduced to the satisfaction of the Local Government Authority, this can be achieved by chemical, mechanical, grazing or fuel reduction burning procedures.

Minimum Load limit

The minimum load a fire break, road or other surface vehicles may be travelling on must be capable of carrying safely without suffering significant permanent deterioration or distress.

Plantation

Any area of planted trees, other than a wind break, that exceeds three hectares in a gazetted town site or elsewhere a stand of trees of 10 hectares or larger, that has been established by sowing or planting native or exotic tree species selected and managed intensively for their commercial and environmental value. A plantation includes roads, tracks, fire breaks and small areas of native vegetation.

Prescribed Burning

The controlled application of fire under specific environmental conditions to achieve predetermined objectives.

Rate of Spread

The forward progress, per unit of time, of the head fire or other specified part of the fire.

Strategic Water Point

Location of a water source that is the first chosen water supply for fire suppression requirements due to its locality, volume and security, making it almost certain that water supply will be available.

Trafficable surface

The quality of terrain will permit continued movement of 4WD fire-fighting vehicles.

Valuable Property

Approved structures with recognised value such as a school, hospital, hotel, motel or other tourist accommodation, a building wholly or principally used as a home by people with disabilities, or retirement village, sheds with flammable materials and machinery. As well as trees, crops or pasture used as a means of income.



Windbreaks/Shelter belts

Planted area of trees not exceeding 100 metres in depth and one kilometre in length. Separation between wind breaks must be 50 metres on side and 15 metres on ends to provide vehicle access.

Belt/Alley Plantings

Exceeding 10 hectares will be classed as a plantation and will be considered as defined in this Glossary as a 'Plantation'.

Acronyms

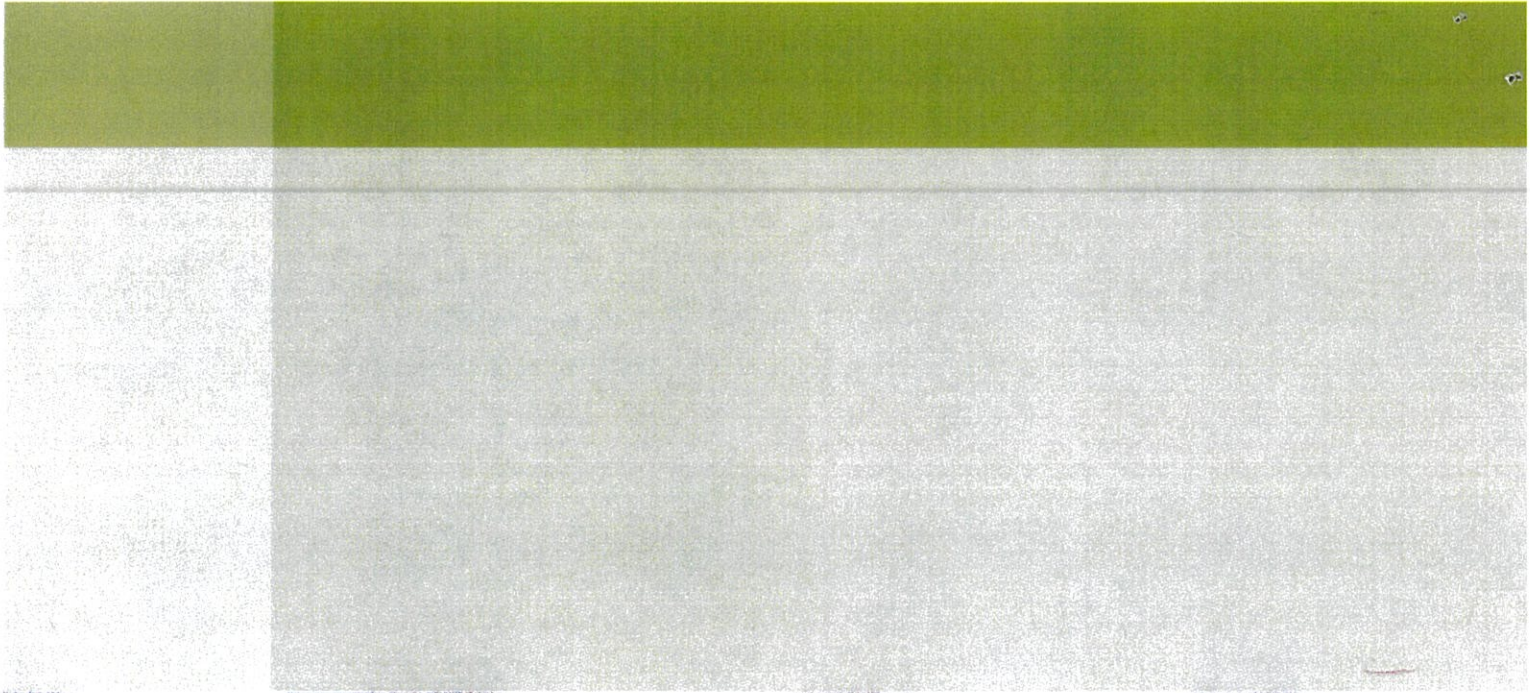
FESA Fire and Emergency Services Authority of Western Australia.

WAPC Western Australian Planning Commission.

LG Local Government

Contact information
FESA Head Office

Street Address	FESA House 480 Hay Street Perth WA 6000
Postal Address	GPO Box P1174 Perth WA 6844
Telephone	(08) 9323 9300
Toll free outside Perth metro area	1800 199 084
Facsimile	(08) 9323 9470
Email	environment@fesa.wa.gov.au



Our Ref: D23406
Your Ref: A12217

Adrian Nicoll
Shire of Boyup Brook
EA@boyupbrook.wa.gov.au

Dear Mr Nicoll

RE: LOTS 4491, 2515, 270, 2516, 2056, 2130, 164, 2381, 3655, 1455, 2038, 2367, 2368, 165, 2317, 2318 MCALINDEN ROAD MCALINDEN - TREE PLANTATION FARM PROPOSED – DEVELOPMENT APPLICATION

I refer to your email dated 3 February 2021 regarding the submission of a Plantation Management Plan (PMP) (Version 07/April2020), prepared by Forest Products Commission and dated 28 January 2022 (page 24 of the PMPCR). The PMP was accompanied by a Location Map (Map 1), Plantable Area Map (Map 2), Fire and Preparedness and Response Plan Department of Biodiversity, Conservation and Attractions (DBCA) Document page 16, and Tree Farm Establishment Plan and Fire Management Plan (Section 3 and 5).

This advice relates only to *Guidelines for Plantation Fire Protection* (GPFP) (FESA, 2011). It is the responsibility of the proponent to ensure the proposal complies with relevant planning policies and building regulations where necessary. This advice does not exempt the applicant/proponent from obtaining approvals applicable to the proposal including planning, building, health or any other approvals required by a relevant authority under written laws.

Assessment:

DFES acknowledge the proposal is for a Tree Plantation Farm and the Shire of Boyup Brook is requesting an assessment of the PMP (V07/ April2020) against the GPFP.

Plantation Summary

Title description:	Lots 4491, 2515, 270, 2516, 2056, 2130, 164, 2381, 3655, 1455, 2038, 2367, 2368, 165, 2317, 2318 McAlinden Road
Shire:	Shire of Boyup Brook
Road:	Lots 4491, 2515, 270, 2516, 2056, 2130, 164, 2381, 3655, 1455, 2038, 2367, 2368, 165, 2317, 2318 McAlinden Road
Locality	Boyup Brook
Name	Water Corporation
Address	629 Newcastle St, Leederville WA 6007
Phone Number	131385
Location Number (s)	As per attached plans
Species of Trees Planted	<i>Pinus radiata</i>
Total Area Planted	Approx. 1,350ha
Previous Land Use and Condition	Primarily bluegum with some cropping and grazing (existing areas of native forest on the property will be maintained)
Adjacent Land Use	Farmland including bluegum, pine, grazing and cropping. Goonac Conservation Reserve managed by DBCA

Guidelines for Plantation Fire Protection (FESA, 2011)

Section 2. Planning for Plantation Fire Management

2.1 External Fire Breaks and Setback Distances

Issue	Assessment	Action
The hazard separation zone between the plantation and an existing or approved habitable building should be a minimum of 100m.	Dwellings were identified through desktop analysis. It appears the buildings located within Lots 270 and 1455 are less than 100m from the proposed plantation boundaries Cootamundra Location Plan (Map 1) and Plantable Area Map (Map 2).	Information to be included in establishment plan those habitable buildings are at least 100 m from the plantation and demonstrated on the Fire Management Plan and Map. The decision maker to be satisfied that enough information is provided.
The hazard separation zone between the plantation and an existing or approved non-habitable structure (i.e., sheds and enclosed storage areas) must be a minimum of 50m.	Non-habitable structures were identified through desktop analysis. It appears the buildings located within the Lots 270 and 1455 are less than 50 m from the proposed plantation boundaries Cootamundra Location Plan (Map 1) and Plantable Area Map (Map 2).	Information to be included in establishment plan those non-habitable buildings are at least 50m from the plantation and demonstrated on the Fire Management Plan and Map. The decision maker to be satisfied that enough information is provided.

Section 3. Fire Management Plans

Issue	Assessment	Action
A fire management plan should be available for each plantation.	PMP does include Fire Management Plan section, however information provided does not comply with GPFP.	Proponent to provide a detailed version of a standalone Fire Management Plan and Map in accordance with GPFP.
Landowner and/or occupier information such as identification of the Plantation Company; and all relevant contact details including a 24-hour fire contact phone number	Information available on the Fire Management Plan (Section 5, PMP). However not available on the Plantable Area Map (Map 2).	Modification required. Contact details to be added into Fire Management Plan Map to comply with GPFP.
Access both within and around the plantation	The PMP mention access via McAlinden Rd (Section 2.2). However, there are no designated access routes within and around the proposed plantation area. The routes are	Modification required. Fire Management Plan Map to display access to comply with GPFP Clarification required from the proponent on road design and layout,

	not available on Plantable Area Map (Map 2).	regarding a minimum 3 m horizontal clearance on either side of the pavement width (total 6 m), 4 m vertical clearance and minimum load limit of 15 tonnes for pavement, culverts and bridges.
Water supplies and approximate capacities of these supplies	It is not clear what are the water features within the proposed plantation area. There is no information whether the water points have 50,000 litres of water permanently available for initial use during fire response (GPFP, 2011).	Further clarification is required from the proponent on the approximate capacity of the water supply. DFES recommends the use of dedicated firefighting water tanks as a reliable all year-round water supply.
Fire management maps and its location	<ul style="list-style-type: none"> — Plantation managers will check and update these maps annually to ensure their quality and accuracy: Yes — Compartment boundaries and size: Yes — Water supplies including irrigation channels and dams: not clear. (Refer to Appendix 3, pg. 28 of GPFP) — Emergency access/egress (fire breaks): not demonstrated — Structures houses, sheds etc.: not clear — Significant features (creek crossings, dead end access tracks, areas of remnant vegetation): not demonstrated — Plantation Fire Maps are to be clearly sign posted at the main property entrances for use by personnel attending a fire: not demonstrated. 	<p>Modification required.</p> <p>A standalone fire management map is required that identifies the features located within and outside the proposed plantation area. The symbology must comply with the GPFP.</p>

Section 4. Plantation Fire Protection Specifications

4.2 Fire breaks and Access

Issue	Assessment	Action
Fire breaks must be maintained in line with the Annual Fire Break Noticed developed by	<i>"External firebreaks are planned to be 15 metres wide and internal breaks 6-10 metres wide as shown in the Fire Protection Plan</i>	Further clarification is required from the proponent on the layout of fire breaks/fire access track and

the LG	<p><i>attached. Firebreaks will be constructed and maintained in accordance with Shire Regulations and the Guidelines for Plantation Fire Protection” - (Section 5.8 of PMP pg. 20).</i></p> <p><i>“The FPC will maintain firebreaks during September/November period each year to ensure they meet appropriate standards leading into each fire season. Where grazing or herbicide applications are ineffective a graded mineral earth break will be programmed to provide safe access around the plantation during summer months and the high fire risk period.” (Section 5.9 of PMP pg. 20).</i></p>	<p>to be annotated on the Fire Management Plan and Map.</p> <p>Fire breaks should not be less than 6 m wide, with 4 m trafficable and 4.5 m vertically. Clear of any living or dead trees, scrub or any other material encroaching into the fire-breaks area.</p> <p>Fire breaks must be regularly maintained and kept free of flammable material all year round.</p>
Tracks should be aligned to provide straight through access at junctions where possible	Fire breaks / fire access track are not demonstrated on the Plantation Map.	<p>Fire breaks / fire access tracks not provided on Plantation map. Further clarification is required from the proponent.</p> <p>A standalone fire management map is required to identify the fire breaks / fire access tracks to be in the proposed plantation area. The symbology must comply with the GPFP.</p>
Fire breaks will be aligned to access remnant native vegetation areas and reliable water supplies where possible	The PMP does not state fire breaks to be aligned to access remnant native vegetation areas and water supplies.	Further clarification is required from the proponent on the layout of fire breaks / fire access track and to be annotated on the Fire Management Map
The minimum trafficable surface within the plantation must permit one lane of traffic with passing areas where appropriate	The PMP and Plantable Map (Map 2) did not provide information on the road design. However, it should comply with Shire of Boyup Brook Firebreak Notice and GPFP (i.e., 4 metre trafficable surface and where access is longer than 100 m passing bay should be installed along accesses at a rate of 1 every 100 m, they should be 20 m long and 6 m wide.	<p>Further clarification is required from the proponent on the road design and information to be included in the Fire Management Plan and Map</p> <p>The Fire Management Plan Map symbology to comply with GPFP.</p>
Passing bays are recommended to be	PMP and Map did not provide	Further clarification is required from the proponent

provided at 200 m intervals and are a minimum of 20 m long and 6 m wide	information on passing bays.	on the road design and information to be included in the Fire Management Plan and Map.
The minimum trafficable surface must be 6 metres, or a width appropriate to the most likely form of fire suppression vehicle	PMP did not provide information on the width of trafficable surface.	Further clarification is required from the proponent on the road design and information to be included in Fire Management Plan and Map
There must be sufficient horizontal and vertical clearance so that vehicles can travel within access tracks. It is recommended that the horizontal clearing be 6 metres and the vertical clearing 4 m.	PMP did not provide information on the clearance within the access tracks.	Further clarification is required from the proponent on the road design and information to be included in the Fire Management Plan and Map.
The maximum grades on fire break will be no greater than 1 in 8 to ensure adequate access by fire suppression vehicles	PMP and Plantable Map (2) did not provide information on the fire break design and fire break layout.	Further clarification is required from the proponent on the fire break design and information to be included in the Fire Management Plan and Map.
The maximum cross fall on fire break will not exceed 1 in 33	PMP did not provide information on the fire-break design.	Further clarification is required from the proponent on the firebreak design and information to be included in the Fire Management Plan and Map.
No through roads should be avoided, if possible, but if they do exist, they must be well sign-posted and include the distance to the end of the road. The road must have a turnaround large enough to accommodate a 2.4 rural fire appliance with a minimum inner radius of 12 m. Road signs should be produced to comply with Australian Standard 1743 Road	PMP and Plantable Area Map (Map 2) did not provide information on the fire-break design and fire-break layout not annotated on.	Further clarification is required. The proponent needs to make sure that no through roads are well sign-posted and include the distance to the end of the road, i.e., comply with <i>Australian Standard 1743 Road Sign Specifications</i> . The turnaround must be able to accommodate a 2.4 rural fire appliance with a minimum inner radius of 12m.

Sign Specifications.		
The main fire breaks must be capable of a minimum load limit of 15 tonnes during the restricted and prohibited burning periods.	PMP did not provide information on the loading capacity of the fire break.	Further clarification required from the proponent on the fire break layout and loading capacity to be included in the Fire Management Plan.
No point within the plantation is to be more than 300 m from a fire break, perimeter break or open paddock or other 3 m minimum wide access to ensure all areas of the plantation are accessible with firefighting hose	PMP and Plantable Area Map (Map 2) did not provide information on the layout of fire break or perimeter break.	Further clarification required from the proponent on the fire break layout and loading capacity to be included in the Fire Management Plan and Map.
Firebreak maintenance programs must take into account recognised fuel hazards.	<p><i>"The FPC will maintain firebreaks during September/November period each year to ensure they meet appropriate standards leading into each fire season. Where grazing or herbicide applications are ineffective a graded mineral earth break will be programmed to provide safe access around the plantation during summer months and the high fire risk period."</i></p> <p>Refer to Section 4.4, 4.5 and 4.6 of PMP, pg. 13 and 14).</p>	<p>Further clarification is required from the proponent on the fire break maintenance programs.</p> <p>Fire breaks must be regularly maintained and kept free of flammable material all year around. They must be clear of any living or dead trees, scrub or any other material encroaching into the fire-breaks area.</p>
Fire break standards must take into account potential fire behaviour including fuels and topography	PMP did not provide information on the layout of existing or proposed fire break.	<p>Further clarification is required from the proponent.</p> <p>The map symbology must comply with GPFP.</p>
Fire breaks must be regularly maintained and kept free of flammable material	<p><i>"The FPC will maintain firebreaks during September/November period each year to ensure they meet appropriate standards leading into each fire season. Where grazing or herbicide applications are ineffective a graded mineral earth break will be programmed to provide safe access around the plantation during summer months and the high fire risk period."</i> (Section 5.9,</p>	<p>Further clarification is required from the proponent on the fire break maintenance.</p> <p>Fire breaks should not be less than 6 m wide, with 4 m trafficable and 4.5 m vertically.</p> <p>Fire breaks must be regularly maintained and kept free of flammable material all year round. They must be clear of</p>

	pg. 20) Further information Refer to Sections 4.5 and 4.6 of PMP pg. 13 and 14).	any living or dead trees, scrub or any other material encroaching into the fire-breaks area.
--	---	--

4.3 Water Supplies

Issue	Assessment	Action
50,000L of water must be permanently available for initial use during fire response.	No written or spatial information provided on the PMP or Plantable Map (Map 2) on capacity of the dam or water tank along within the proposed plantation area.	Further clarification is required from the proponent on the capacity of the dams. DFES recommends the use of dedicated firefighting water tanks as meeting the requirement of a permanent secure water supply. Spatial location of permanent water points must be annotated on Fire Management Plan Map. The map symbology must comply with GPFP.
The strategic water supply options must be secured source for the duration of the plantation	Not a clear written or spatial information provided on the PMP or Plantable Map (Map 2) on capacity of the dam or water tank within the proposed plantation area dedicated for firefighting water supply.	Further clarification is required from the proponent on the dam capacity and capability to support heavy fire fighting fleets. DFES recommends the use of dedicated firefighting water tanks as meeting the requirement of a permanent secure water supply.
The capacity and location of the strategic water supply must be commensurate with the size of the plantation, larger plantations may require several water points to be made available	It is not clear written and no spatial information provided on the PMP on capacity of the dam or water tank within the proposed plantation area dedicated for firefighting water supply.	Further clarification is required from the proponent on the capacity of dam to commensurate proposed plantation compartments DFES recommends the use of dedicated firefighting water tanks as meeting the requirement of a permanent secure water supply.
Where no suitable water is available on a plantation an agreement with adjoining neighbours to establish a joint strategic water	No written or spatial information provided on the PMP and Plantable Map (Map 2) regarding an agreement between neighbours on joint strategic water supply	Further clarification is required from the proponent on the dam capacity. DFES recommends the use of dedicated firefighting water tanks as meeting the

supply may be needed. A written formal agreement is necessary in such circumstances between the owner/manager/occupier.	dedicated for firefighting.	requirement of a permanent secure water supply.
Water supply facilities must be designed and constructed so that heavy duty firefighting equipment is able to access the supply.	No information provided.	Further clarification is required from the proponent on the dam capacity and capability to support heavy fire fighting fleets. DFES recommends the use of dedicated firefighting water tanks as meeting the requirement of a permanent secure water supply.

Recommendation – not supported modifications required.

The development application and PMP have not adequately addressed the requirements of the GPFP. The required modifications are listed in the table(s) above. Modifications to the PMP are necessary to manage the associated bushfire risk and essential mitigation measures. In addition, it is recommended the PMP is modified to include a dedicated water tank for firefighting purposes, provision of APZ's surrounding dwellings, and vehicle access improvements consistent with the Guidelines for Planning in Bushfire Prone Areas (Version 1.4, December 2021).

These modifications can be undertaken without further referral to DFES. If you require further information, please contact me on telephone number 9395 9838.

Yours sincerely



**Ana Negreiros
Environmental Officer**

21 February 2022

cc: Anicoll@plancreate.com.au

25th Feb 2022

Our Reference: PA 047450 , DWERT1841~5

Your Reference: A12217

To: Shire of Boyup-Brook

From: Department of Water and Environmental Regulation

Attention: Dale Putland

RE: Proposed plantation at Lots 4491, 2515, 270, 2516, 2056, 2130, 164, 2381, 3655, 1455, 2038, 2367, 2368, 165, 2317 & 2318 McAlinden Road, McAlinden

Dear Dale,

Thank you for providing the above proposed plantation Development Application (DA) for the Department of Water and Environmental Regulation (Department) to consider.

Proposal summary

This DA is to establish a 1350 ha pine plantation of at the above subject properties (Screenshot 1 & 2).

This proposal replaces the existing bluegum plantations.

The following statement is noted in Section 3.8 of the document 'Plantation Management Plan – Cootamundra Farm, McAlinden Water Corporation (V07/April2020)' contained in the referral:

- "No areas of remnant vegetation, notifiable under the Soil and Land Conservation Act 1945 of Western Australia, are to be cleared as part of the proposed planting. The remaining areas of blue gum coppice will be removed prior to pine establishment"

In addition, the current grazing activities will resume on the new plantings and endemic vegetation will be excluded as per the statement in Section 4.5 (Screenshot 3).

Sheep grazing

The department notes that the property is subject to a grazing lease with a sheep farmer who has 5,000 sheep on the property (with plans to add another 4000 sheep).

The department has no objection to the proposed continuation of the grazing activity, and based on the information provided.

However, in the unlikely event that any processing activities are proposed onsite (e.g. wool scouring/abattoir/feedlots), referral is required to be made to the Department as these activities can be subject to the *Environmental Protection Regulations 1987*.

Water supply

The subject property is located within the Collie River Irrigation District as proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act).

Any taking or diversion of surface water in this proclaimed area (whether by direct pumping, construction of a dam, or excavation) can be subject to licensing. Any interference of the watercourse (such as the construction of a dam or crossing, or excavation of the watercourse) may require a *permit to interfere with the bed or banks* from the department. Exemptions from regulation can be sought from the department related to the presence of any springs at the head of a watercourse rising on the property.

No information has been provided if water is required to irrigate the proposed plantations, or the water demand to supplement the sheep grazing activity – noting that there may be a need for additional water storage options.

As such, the proponent is advised to contact the Department's Bunbury Water licensing branch on 9726 4111 to determine if the proposed take of water is subject to the RIWI Act.

Native vegetation clearing

CAWS Act

The proposal is within the 1 November 1976 *Country Areas Water Supply Act 1947* (CAWS Act) gazetted Wellington Dam Catchment Area to which clearing restrictions apply.

DWER understands that there is to be no clearing of native vegetation for the proposed plantations as per the statement in Section 3.8 of the document 'Plantation Management Plan – Cootamundra Farm, McAlinden Water Corporation (V07/April2020)' contained in the referral:

"No areas of remnant vegetation, notifiable under the Soil and Land Conservation Act 1945 of Western Australia, are to be cleared as part of the proposed planting. The remaining areas of blue gum coppice will be removed prior to pine establishment"

It is further understood that no clearing of native vegetation via grazing will occur as these areas will be excluded from grazing. Given that CAWS Act memorials and Soil and Lands Commission ATRs cover sections of the property it is DWER's preference that native vegetation areas are fenced prior to any grazing taking place.

As no clearing is proposed with this development/subdivision, the Department has no comments to offer from a CAWS perspective.

EP Act

Under section 51C of the *Environmental Protection Act 1986* (EP Act), clearing of native vegetation is an offence unless:

- it is undertaken under the authority of a clearing permit
- it is done after the person has received notice under Section 51DA(5) that a clearing permit is not required
- the clearing is subject to an exemption

Exemptions for clearing that are a requirement of written law, or authorised under certain statutory processes, are contained in Schedule 6 of the EP Act. Exemptions for low impact routine land management practices outside of environmentally sensitive areas (ESAs) are contained in the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (the Clearing Regulations).

As no clearing is proposed with this development/subdivision, the Department has no comments to offer from an EP Act perspective.

General water quality advice

To assist in maintaining water quality of the waterways, the proponent is advised to refer to the departments Water Quality Protection Note (WQPN) 6 – 'Vegetation buffers to sensitive water resources' (Feb 2006) (see attached).

In addition, although the proposal is located outside of a Public Drinking Water Source Area, the proponent may wish to refer to WQPN 121 'Plantations in public drinking water source areas' (Nov 2012) to assist them with their operations (as attached).

Summary of advice

- In the unlikely event that any processing activities are proposed onsite (e.g. wool scouring/abattoir/feedlots), referral is required to be made to the Department as these activities can be subject to the *Environmental Protection Regulations 1987*.
- the proponent is advised to contact the Department's Bunbury Water licensing branch on 9726 4111 to determine if the proposed take of water is subject to the RIWI Act.
- The proponent is advised to refer to WQPN 6 and WQPN 121 as practical and appropriate to their situation
- The department has no objections to the proposal.

Thank you.

Regards

Daniel Wong

Environmental Officer
Department of Water and Environmental Regulation
Planning Advice South West Region

Email: daniel.wong@dwer.wa.gov.au
Phone: 08 9726 4113
Fax: 08 9726 4100
Postal: PO Box 261, Bunbury, WA 6231
Location: 35-39 McCombe Road, Bunbury, WA 6230



Water quality protection note 121

November 2012

Looking after all our water needs

Plantations in public drinking water source areas

Purpose

This note is intended to inform industry operators, government officers, environmental consultants and community members on water quality protection aspects of tree plantations in public drinking water source areas (PDWSAs), including the planning and initial design stages, operation and management, harvesting and re-establishment in subsequent rotations.

This note provides advice on environmental issues and makes recommendations on best practice. Its purpose is to provide guidance on plantation activities within PDWSAs to limit water contamination risk and ensure the protection of water resource quality.

Overview

Plantations that are well-planned and properly managed have the ability to generate economic, environmental and social benefits. Some of the environmental benefits of establishing appropriate tree plantations in catchment areas include reducing salinity, preventing nutrient and pesticide leaching and maintaining land slope stability.

Poorly managed plantations can lead to degraded water quality through:

- soil erosion from surface water run-off due to slope instability resulting in increased turbidity in surface water bodies
- nutrient and chemical contamination from fertiliser, pesticide and hydrocarbon residues
- pathogens from human activity near waterways.

Water quality (physical, chemical and biological) in PDWSAs should be protected by appropriate management activities that control the change in risk to water quality resulting from plantation activities.

Appendices provide additional background and technical advice as follows:

- A. Information on public drinking water sources, note limitations and updates.
- B. Relevant statutes and administering agencies.
- C. Data needed for assessing developments, followed by references and further reading, note disclaimer and how to provide feedback.

Scope

This note applies to tree plantations that provide forestry products within PDWSAs. This includes softwoods such as *Pinus radiata* and *Pinus pinaster* and non-indigenous hardwood trees such as *Eucalyptus saligna* (Sydney blue gums) and *Eucalyptus globulus* (Tasmanian blue gums).

The note does not apply to plantation areas located outside of PDWSAs, or plantations for non-wood products such as orchards. Additionally, agroforestry on freehold rural land is not covered by this document, but it may offer some useful guidance on potential risks to water resources and good practice. Water allocation for plantation establishment is also not detailed in this note. Relevant information can be obtained from our regional offices.

- There are several national and state guidelines that underpin advice given in this note. Please see reference numbers 1f, 2, 3, 8 (section 4.4) and 9, displayed in the *References and further reading* section.

Advice and recommendations

Acceptability within public drinking water source areas

- 1 Plantations used for timber products are compatible with conditions in all priority areas within PDWSA. This means the land use is likely to be accepted by the Department of Water provided best environmental management practices are effectively applied.
- 2 Plantations are considered compatible with conditions (subject to recommendation 17) within reservoir protection zones and wellhead protection zones. Specific conditions covering access and the storage and use of hydrocarbons and chemicals may be applied within these zones.
- 3 Drinking water source protection reports (DWSPRs) are developed for each PDWSA in Western Australia. They include site-specific recommendations for best practice management to protect water quality. These should be considered by the plantation manager prior to developing a plantation management plan.

Planning and approvals

Planning

- 4 The location, design and timing of plantations should maintain water quality protection values, including those for drinking water.
- 5 For an allocation of water to meet the plantation's needs, you need to apply to the Department of Water for a licence. The department has published *Plantation forestry and water management guideline*, which clarifies our role in plantation water use and allocation planning (reference 5b).
- 6 A plantation management plan (as described in the *Code of practice for timber plantations in Western Australia* (reference 8)) should be developed in consultation with the Department of Water.

- 7 For guidance on key components of a plantation management plan to facilitate assessment by the Department of Water, see *Appendix C, Table 1*. The plantation management plan should include:
 - a a plantation map, including location of waterways, foreshore areas, vegetation buffer areas (see relevant recommendations later in this note), native vegetation and other significant features
 - b an establishment plan which outlines significant environmental management topics and methods
 - c a maintenance plan which prescribes management activities during the rotation of the plantation
 - d a fire control plan which contains communication details, firebreaks and water points.
- 8 For plantations less than 10 ha in area, a harvest management plan should be developed in consultation with the Department of Water. For information that should be included in a harvest management plan for assessment by the Department of Water, see *Appendix C, Table 2*.
- 9 For plantations greater than 10 ha in size, a more detailed drinking water quality management plan (DWQMP) for plantation harvesting should be developed in consultation with the plantation manager, water service provider and the Department of Water. For information that should be included in a DWQMP for assessment by the Department of Water, see *Appendix C, Table 2*.

Approvals

- 10 For freehold land and reserves vested in a local government, proponents should submit all plans to the local government, as per the relevant local planning policy. If the plantation is within a PDWSA, the local government should then refer the proposal to the Department of Water for assessment (see *Appendix C, tables 1 and 2*).
- 11 The clearing of native vegetation in Western Australia is primarily authorised by the granting of a permit under the *Environmental Protection Act 1986* administered by the Department of Environment and Conservation.
- 12 If the plantation is within a 'clearing control catchment' (see *Appendix A*), a licence to clear vegetation issued by the Department of Water under the *Country Areas Water Supply Act 1947* is also required where:
 - a clearing is exempt under the *Environmental Protection Act 1986* (unless there is an exemption granted under the *Country Areas Water Supply Act 1947*)
 - b clearing is exempt under the Environmental Protection (Clearing of Native Vegetation) Regulations 2004
 - c compensation for refusal of a licence under the *Country Areas Water Supply Act 1947* to a previous client has occurred.
- 13 When proposing changes to a plantation management plan that could affect water quality in a PDWSA, plantation managers should seek advice from the Department of Water prior to implementing the changes.

- 14 Harvesting contractors are required to comply with the Forest Industries Federation's *Road haulage code of conduct* (reference 8b).
- 15 Storage and handling of hydrocarbons and chemicals must comply with relevant constraints (including setbacks from water bodies) described in the *Metropolitan Water Supply, Sewerage and Drainage Act 1909*, the *Country Areas Water Supply Act 1947* and the associated by-laws (see Appendix B).
- 16 Plantation proposals should also conform to other relevant statutory requirements (see *Appendix B*) prior to their implementation.
- 17 When entering a designated disease risk area (DRA), all forestry personnel, vehicles and machinery must carry a current Department of Environment and Conservation DRA entry permit, and present it to authorised officers upon request.

Design and construction

- 18 Plantations should not be established or replanted on land slopes with a gradient exceeding 1 in 3. Within reservoir protection zones, plantations should not be established or replanted on slopes exceeding 1 in 7, unless structural drainage controls are used to ensure an acceptable risk to water quality.
- 19 Surface water management—including drainage controls for roads, access tracks and log handling areas—should be undertaken to improve safety, prevent erosion and turbidity and extend the overall working life of infrastructure associated with the plantation. The following documents should be used when considering surface water management controls:
 - a Department of Environment and Conservation's Sustainable forest management series *Soil and water conservation guideline*, section 4 and schedules 19–22 (reference 2)
 - b Forest Industries Federation (WA) *Code of practice for timber plantations in Western Australia*, section 4.5 (reference 8).

Near waterways

- 20 An adequate setback distance should be maintained between plantations and waterways (including foreshore areas) to protect their ecological and social values and prevent degradation to water quality. Buffer (setback) distances to PDWSA reservoirs and waterways should be determined by using our Water quality protection note (WQPN) no. 6: *Vegetated buffers to sensitive water resources* (reference 5c).
- 21 Natural foreshore setback areas are determined on the basis of the waterway values, vulnerability to threats and biophysical criteria as described in our Operational policy: *Identifying and establishing waterway foreshore areas*. Our Water note no. 23 and River restoration report no. 16 both titled: *Determining foreshore reserves*, provide supporting information on identifying foreshore areas (references 5a, 5e and 14b).
- 22 Natural vegetation buffers can improve water quality by filtering potentially contaminated water before it enters a water body. Local hydrology, types of contaminants, landform and buffer vegetation density are important factors when determining appropriate separation distances between plantations and waterways.

- 23 Vegetation buffers should be maintained or re-established along waterways and protection zones using native vegetation of local provenance as described in WQPN no. 6.
- 24 Removal of wildlings (exotic species spread from neighbouring plantation areas) from outside the plantation boundary—including within buffer areas and riparian zones—should be included as part of the plantation management plan.
- 25 Plantations must be designed in accordance with the bushfire control legislation (see *Appendix B*).

Operation and management

- 26 Operation and management of plantations in PDWSAs should be conducted using the guidance documents shown in references 2 (table 17), 5d, 8 and 9.
- 27 Operators and subcontractors should adhere to the plantation management plan, harvesting management plan and drinking water quality management plan during plantation establishment, management, and harvesting.
- 28 Pesticide use in PDWSAs should adhere to:
- a Department of Water's Statewide policy no. 2: *Pesticide use in public drinking water source areas* (reference 5a)
 - b Department of Health's Public service circular no. 88: *Use of herbicides in water catchment areas* (reference 3)
 - c Department of Health's: *A guide to the use of pesticides in Western Australia* (reference 3).
- 29 Consider the following when developing fertiliser prescriptions as part of establishment and maintenance plans:
- a Match fertiliser application to meet the stages of vegetation growth to avoid nitrogen and phosphorus leaching and run-off into waterways.
 - b Different soil types have different capacities for nutrient attenuation.
 - c Nutrient and irrigation management plans are useful tools to help determine fertiliser requirements (see reference 5c).
 - d Fertiliser should be applied under ideal weather conditions to prevent run-off.
 - e The 'trafficability index' should be used as an indicative measure for the capacity of soil to cope with traffic from heavy vehicles (see reference 2, schedules 1–3.).
- 30 Within PDWSAs, any chemical spills or other incidents posing a risk to water quality should be immediately reported to the water service provider. The water Corporation's all-hours phone numbers are 1800 626 636 or 13 13 75.

Appendix A: Information on public drinking water source areas, note limitations and updates

Sensitive water resources

Water resources sustain ecosystems, aquatic recreation and aesthetic values and provide drinking, industry and irrigation supplies. Along with breathable air, uncontaminated water

is essential for viable communities. Natural waters must remain within defined quality limits to retain their ecological, social and economic values. To sustain these values these waters require appropriate protection measures to minimise contamination.

Information on water quality parameters and processes to maintain water values are published in the Australian government's National water quality management strategy papers. These papers are available online at <www.environment.gov.au> select *water* > *water policy and programs* > *water quality* >.

The Department of Water strives to improve community awareness of drinking water source catchment protection measures (for both surface water and groundwater), as part of a multi-barrier protection approach to sustain acceptable water resource quality. Human activity and many land uses pose a risk to water quality if contaminants are washed or leached into sensitive water bodies in significant quantities.

Public drinking water source

Overview

Public drinking water source area (PDWSA) is the collective name given to any area proclaimed to manage and protect a community drinking water scheme source. PDWSA include *underground water pollution control areas*, *water reserves* and *catchment areas* administered under the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* or the *Country Areas Water Supply Act 1947*. For online information on the location of PDWSA, see <www.water.wa.gov.au> select *tools and data* > *maps and atlases* > *geographic data atlas*, then open *environment* > *public drinking water source areas*.

Three priority areas—priority 1 (P1), priority 2 (P2) and priority 3 (P3)—have been defined to guide land planning, rezoning and development approval processes within PDWSA. Priority areas are assigned based on the current local planning scheme zoning, land tenure, the water source's strategic value and its' vulnerability to harm. Each priority area is managed using a specific risk-based strategy to provide for effective water resource protection.

P1, P2 and P3 areas are assigned via drinking water source protection plans or land use and water management strategies. This department develops these documents in consultation with other government agencies, landowners, industry and the community.

P1 areas are defined to ensure that there is *no degradation* of the water source induced by significant or high risk human activity. These areas are declared over land where the provision of a high quality drinking water source for public use is the prime beneficial land value. P1 areas typically cover land controlled by a state government agency. P1 areas are managed in accordance with the principle of *risk avoidance* and so most land development and human activity is normally opposed.

P2 areas are defined to ensure that there is *no increased risk of pollution* to the water source once a source protection plan has been published. These areas are declared over land where low intensity development (such as rural use) already exists. Protection of public water supply sources is a high priority in these areas. P2 areas are managed via the principle of *risk minimisation*, and so the intensity of land development is restricted (with management conditions) and activities with a low contamination risk are accepted.

P3 areas are defined where it is necessary to *manage the risk of pollution* to a water source. These areas are declared over land where public water supply sources must coexist with other land uses such as residential, commercial and/or light industrial development. Protection of P3 areas is achieved through pollution control measures defined via environmental guidance (such as these notes) or via site-specific development conditions that limit the contamination risk to water resources from the land use or activity. If a drinking water source becomes significantly contaminated, then water supplied from P3 sources may need to be treated more intensively or an alternative water source found.

Protection zones are also defined close to the point where drinking water is harvested or stored. These zones are known as *wellhead protection zones* (WHPZs) and *reservoir protection zones* (RPZs). Additional constraints provided under catchment protection statutes apply to activities within these zones to further safeguard an area closest to these vulnerable water sources.

WHPZs are assigned around drinking water production wells. Specific land use restrictions apply in these zones. Groundwater in WHPZs moves rapidly towards wells due to the extraction pump depressurising the aquifer. Any contamination leaching from the ground surface within WHPZs can rapidly migrate into scheme water supplies (before effective remedial action can occur). In sedimentary basins, WHPZs are usually circular, with a radius of 500 m in P1 areas and 300 m in P2 and P3 areas. These zones do not extend beyond PDWSA boundaries.

RPZs are defined over and around public water supply dams or pipe-head reservoirs. Statutory access and land use restrictions apply in RPZs. The aim is to restrict the likelihood of contaminants being deposited or washing into water sources following rainfall. RPZs within state-controlled land cover an area of up to two kilometres measured from the reservoir top water level and include the inundated area when the reservoir is full.

For additional explanatory information on PDWSAs, see our Water quality protection note (WQPN) no. 25: *Land use compatibility in public drinking water source areas* and WQPN no. 36: *Protecting public drinking water source areas*.

Buffers to water supply sources

Native vegetation buffers should separate compatible land use areas from the full supply level of reservoirs, their primary feeder streams and production bores used as a source of drinking water. Advice is provided on suitable buffer forms and dimensions in our WQPN no. 6: *Vegetated buffers to sensitive water resources*.

Within clearing control catchments

Specific controls on vegetation clearing for salinity management are provided under part IIA of the *Country Areas Water Supply Act 1947*. These controlled land areas apply within in the Wellington Dam, Harris River Dam, Mundaring Weir and Denmark River catchment areas and the Kent River and Warren River water reserves.

Details on clearing controls may be obtained from our local regional office. For offices locations see online information at <www.water.wa.gov.au>, select *Contact us*.

Established activities within PDWSA

Many land use activities were approved and established before publication of a source protection plan or strategy. We encourage the operators of all established land use activities to progressively improve their environmental management facilities and practices so the risk to water resources is minimised (mindful of practical and economic constraints).

New or expanded activities in PDWSA

Any development proposals that could affect a drinking water source should be referred to this department's local regional office with detailed supporting information for an assessment and written response.

The development proposal may be:

- approved (with or without conditions)
- delayed pending receipt of additional information before a decision is made; or
- opposed due to a statutory or policy conflict or inadequate protective measures provided to safeguard the water source.

To assist the assessment, operators should demonstrate that under all operating conditions the facilities and processes used on-site do not pose a significant water contamination risk.

Note limitations

Many Western Australian aquifers, waterways and wetlands await detailed scientific evaluation, present data on their quality is sparse and their values remain unclassified. Unless demonstrated otherwise, any natural waters that are slightly disturbed by human activity are considered to have sensitive environmental values. Community support for these water values, the setting of practical management objectives, provision of sustainable protection services and effective implementation are vital to protecting or restoring water resources for both current needs and those of future generations.

This note provides a general guide on environmental issues, and offers solutions based on data searches, professional judgement and precedents. Recommendations made in this note do not override any statutory obligation or government policy statement. Alternative practical environmental solutions suited to local conditions may be considered.

This note's recommendations shall not be used as this department's policy position on a specific matter, unless confirmed in writing. In addition, regulatory agencies should not use this note's recommendations in place of site-specific development conditions based on a project's assessed environmental risks. Any regulatory conditions should consider local environmental values, the safeguards in place and take a precautionary approach.

Where a conflict arises between this note's recommendations and any activity that may affect a sensitive water resource, this note may be used to assist stakeholder negotiations. The negotiated outcome should not result in a greater water quality contamination risk than would apply if the recommended protection measures were used.

Water quality protection note updates

This note will be updated as new information is received, industry/activity standards change and resources permit. The currently approved version is available online at

<www.water.wa.gov.au> select *publications* > *find a publication* > *series browse* > *water quality protection notes*.

Appendix B: Statutory approvals relevant to this note

What's regulated?	Western Australian statutes	Regulatory office
Aboriginal Heritage and Native Title Claims	<i>Native Title Act 1993</i>	Department of the Attorney General - Office of Native Title www.ont.dotag.wa.gov.au
	<i>Aboriginal Heritage Act 1972</i>	Department of Indigenous Affairs www.dia.wa.gov.au
Occupational health and safety	<i>Occupational Safety and Health Act 1984</i>	Department of Commerce www.commerce.wa.gov.au
Bushfire control on state controlled land	<i>Conservation and Land Management Act 1984</i>	Department of Environment and Conservation www.dec.wa.gov.au
Prescribed premises that could pollute	<i>Environmental Protection Act 1986</i> , Part V Environmental regulation	
Forest management and harvesting activities	Forest Management Regulations 1993	
		Forest Products Commission < www.fpc.wa.gov.au >
Transport, storage and handling of fuels, solvents, explosive and other dangerous goods	<i>Dangerous Goods Safety Act 2004</i> Dangerous goods safety regulations 2007	Department of Mines and Petroleum, Resources Safety Division www.dmp.wa.gov.au
Taking of surface water, groundwater or waterway disturbance	<i>Rights in Water and Irrigation Act 1914</i>	Department of Water, regional office www.water.wa.gov.au
Discharge of waters to managed waterways	<i>Waterways Conservation Act 1976</i>	
Fertiliser use in PDWSAs Chemical use and storage in PDWSAs Pesticide use in PDWSAs Storage of hydrocarbons in PDWSAs	<i>Metropolitan Water Supply, Sewerage and Drainage Act 1909</i> <i>Country Areas Water Supply Act 1947</i>	Department of Water, regional office www.water.wa.gov.au
	Metropolitan Water Supply, Sewerage and Drainage Act By-laws 1981	
Clearing of native vegetation in the Mundaring, Wellington, Harris, Denmark, Warren or Kent catchments	Country Areas Water Supply Act By-laws 1957	
Emergency response planning	<i>Fire and Emergency Services Authority of WA Act 1998</i>	Fire and Emergency Services Authority www.fesa.wa.gov.au

What's regulated?	Western Australian statutes	Regulatory office
Bushfire controls	<i>Bushfires Act 1954</i> <i>Bushfires Amendment Act 1987</i>	Local government authority
Wetlands, drinking water catchments and estuaries	<i>Environmental Protection Act 1986</i> , Part III Environmental protection policies	Minister for the Environment advised by the Environmental Protection Authority www.epa.wa.gov.au
Impact of significant development proposals on the values and ecology of land or natural waters	<i>Environmental Protection Act 1986</i> , Part IV Environmental impact assessment	

Relevant statutes are available from the State law publisher at <www.slp.wa.gov.au>.

Appendix C: Data needed to assess development approvals

The following checklists are provided to assist plantation owners or managers to develop plantation management plans, harvest management plans and drinking water quality management plans. Ticks have been used to note information that is required in each plan in order for the Department of Water to assess the proposal.

Table 1 Assessment checklist for a plantation management plan

Information needed	Plantation management plans			
	Plantation map	Establishment plan	Maintenance plan	Fire plan
Land owner and plantation manager details	✓			
Relevant stakeholder contact details including emergency response		✓	✓	✓
A map showing plantation categories and areas	✓			
A locality plan which includes access roads	✓			✓
Infrastructure within the PDWSA				
Fences and gates (including security measures)	✓		✓	✓
Utilities (including production bores used for town water supply)	✓			✓
Water points	✓			✓
Roads and tracks	✓		✓	✓
Fire breaks and access	✓	✓	✓	✓
Bridges and creek crossings	✓			✓

Information needed	Plantation management plans			
	Plantation map	Establishment plan	Maintenance plan	Fire plan
Services, power lines and other reticulated services		✓	✓	✓
Natural features				
Waterways (including feeder streams to reservoirs and waterways within water reserves)	✓	✓	✓	✓
Areas of native vegetation	✓	✓	✓	✓
Vegetation buffer areas to waterways	✓	✓	✓	✓
Other significant features (such as reservoir foreshore areas, wetlands)	✓		✓	✓
Water resource management areas				
Priority areas (P1, P2 or P3)	✓	✓	✓	
Protection zones (RPZ or WHPZ)	✓	✓	✓	
Drinking water source location (reservoir or recharge area)	✓	✓	✓	✓
Plantation management				
Harvest residue management prior and post planting		✓	✓	
Areas to be planted and compartment sizes		✓		
Location of plantation rows and rip lines, in relation to contours and natural drainage channels		✓		

Information needed	Plantation management plans			
	Plantation map	Establishment plan	Maintenance plan	Fire plan
Drainage areas and control measures		✓	✓	
Plantation species type(s)		✓		✓
Description of site and soil preparation methods.		✓		
Planting prescription		✓		
Pest and weed control methods and regime.		✓	✓	
Fertilising prescription or nutrient and irrigation management plan		✓	✓	
Pruning and thinning regimes			✓	
Fire/incident management and response				
Locality plans showing access roads, firebreaks, water points				✓
Methods of access to roads and firebreak maintenance				✓
Fire fighting equipment register for the locality and details of cooperative arrangements				✓
Direction indicators to water points, road signs and other features				✓
A fuel reduction program, if applicable			✓	✓

Table 2 Checklist for assessing plantation harvest management plans or drinking water quality management plans (DWQMP)

Information needed	Harvest management plan (<10ha)	DWQMP (>10ha)
Harvest manager details	✓	✓
Plantation owner details	✓	✓
Landowner details	✓	✓
Map of the harvest area		
Map of the harvest area in relation to waterways and reservoirs	✓	✓
Map of the harvest area in relation to vegetation buffers	✓	✓
Location of access track and roads to be used and location of signage		
Drainage controls	✓	✓
Haulage routes, plantation roads and extraction tracks		✓
Proposed harvesting methods		
Pre harvest notification to Department of Water and water service provider		✓
Updated harvest plans and progress plans (as specified in the DWQMP)		✓
Winter inspection		✓
Harvest residue management	✓	✓
Landing and log storage areas		✓
Protection measures for vegetated buffers	✓	✓
Establishment methods for second rotation		

Information needed	Harvest management plan (<10ha)	DWQMP (>10ha)
Proposed dates for replanting	✓	✓
Attached establishment plan (if applicable)	✓	✓
Fire protection preparedness, response and restrictions		
Attached fire management plan	✓	✓
Wet-weather restrictions to minimise soil disturbance and turbidity contamination		
Drainage measures	✓	✓
Heavy machinery restriction during high rainfall events	✓	✓
Onsite inspections with Department of Water and water service provider		✓
Safeguards to protect significant features		
Water source protection specific management methods	✓	✓
Incidents that may cause contamination to the water resource asset	✓	✓
Protection methods for vegetation buffers during harvest operations	✓	✓
Minimum safety requirements		
Hygiene measures		
Disease risk area control	✓	✓
Management of microbiological risks		✓

References and further reading

- 1 Australian Government National water quality management strategy papers, available online at < www.environment.gov.au > select *water* > *water policy and programs* > *water quality*:
 - a Paper 2 *Policies and principles*, 1994
 - b Paper 3 *Implementation guidelines*, 1998
 - c Paper 4 *Australian and New Zealand guidelines for fresh and marine water quality*, 2000
 - d Paper 6 *Australian drinking water guidelines*, 2011
 - e Paper 7 *Australian guidelines for water quality monitoring and reporting*, 2000
 - f Paper 9 *Rural land uses and water quality - a community resource*, 2000To obtain printed copies of the papers, see internet site < www.awa.asn.au >, request them by email at < bookshop@awa.asn.au > or obtain them from a library.
- 2 Department of Environment and Conservation (WA) 2009, Sustainable forest management series: *Soil and water conservation guidelines*, available online at <www.dec.wa.gov.au>.
- 3 Department of Health (WA) publication available online at < www.health.wa.gov.au > Health hazards in the environment > Chemicals and pesticides
 - a Public service circular no. 88 (PSC 88) *Use of herbicides in water catchment areas*
 - b *A guide to the use of pesticides in Western Australia*.
- 4 Department of Mines and Petroleum - dangerous goods codes, guidelines and licenses. For online publications see < www.dmp.wa.gov.au > select *resources safety* > *dangerous goods* > *storage and handling*.
- 5 Department of Water publications available online at < www.water.wa.gov.au >
 - a Water resource management policies
 - 2012, Operational policy: *Identifying and establishing waterways foreshore areas*
 - 2000, State-wide policy no. 2: *Pesticide use in public drinking water source areas*, Water and Rivers Commission.
 - b 2009 *Plantation forestry and water management guideline*, select *managing our water* > *plantations* > *plantations and water management guideline*.
 - c Water quality protection notes (WQPN), select *publications* > *find a publication* > *series browse* > *water quality protection notes*
 - WQPN 6 *Vegetated buffers to sensitive water resources*
 - WQPN 22 *Irrigation with nutrient-rich wastewater*
 - WQPN 25 *Land use compatibility in public drinking water source areas*
 - WQPN 33 *Nutrient and irrigation management plans*
 - WQPN 65 *Toxic and hazardous substances - storage and use*.

- d Drinking water source protection plans, select *publications > find a publication > series browse > water resource protection plans*
- e Waterways water notes (WN), select *publications > find a publication > series browse > water notes*
 - WN 10: *Protecting riparian vegetation*
 - WN 11: *Identifying the riparian zone*
 - WN 23: *Determining foreshore reserves.*
- f Stormwater publication available online at < www.water.wa.gov.au > select *publications > find a publication > series browse > stormwater management manual.*

Stormwater management manual for Western Australia.

- 6 Environmental Protection Authority (WA) publications available online at < www.epa.wa.gov.au > select *guidance statements*
 - a Guidance statement no. 3: *Industrial-residential buffer guidelines*
 - b Guidance statement no. 33: *Environmental guidance for planning and development.*
- 7 Engineers Australia publication available for purchase at < www.engineersmedia.com.au > search *EA books Australian rainfall and run-off* (current edition).
- 8 Forest Industries Federation (WA) Inc. publications
 - a *Code of practice for timber plantations in Western Australia 2006*
 - b *Road haulage code of conduct 2005.*
- 9 Forest Products Commission (WA) publication
Contractors timber harvesting manual – plantations 2005.
- 10 The Institute of Foresters (IFA) of Australia, IFA policy statements, available online at < www.forestry.org.au > select *forestry > IFA policy statements*
 - a Statement 2.5: *Use of chemicals in plantation forestry*
 - b Statement 2.6: *Forest management planning*
 - c Statement 2.8: *Forest regulation and codes of practice*
 - d Statement 5.2: *Plantation forests and water.*
- 11 Natural Resource Management Ministerial Council (Australia) publication, available online at < www.iah.org.au > search *publications Minimum construction requirements for water bores in Australia, 2003.*
- 12 Smethurst PJ, Nambiar S, Raison J, Moggridge B - National research flagships – sustainable agriculture - CSIRO August 2011, prepared for the Australian Department of Agriculture, Fisheries and Forestry and available online at www.csiro.au
Assessment of code of practice for plantation forestry: Western Australia.

- 13 Standards Australia publication, available for purchase at < www.saiglobal.com > select publications
Australian Standard 5667 *Water quality – sampling*.
- 14 Water and Rivers Commission (WA) publications, online at < www.water.wa.gov.au > select *Managing water*> *Rivers and estuaries*> *Protecting* > *Foreshore policies*
- a Foreshore policy no. 1: *Determining the foreshore area 2002*
 - b River restoration report 16: *Determining foreshore reserves, A guide to the nature, protection, rehabilitation and long-term management of waterways in Western Australia 2001 (the River Restoration Manual)*.
- 15 Western Australian Planning Commission policy 4.1, available online at < www.planning.wa.gov.au > select *plans and policies* > *state planning policies*
State industrial buffer policy, draft 2009.

Disclaimer

This document has been published by the Department of Water. Any representation, statement, opinion or advice expressed or implied in this publication is made in good faith and on the basis that the Department of Water and its employees are not liable for any damage or loss whatsoever which may occur as a result of action taken or not taken, as the case may be in respect of any representation, statement, opinion or advice referred to herein. Professional advice should be obtained before applying the information contained in this document to particular circumstances.

Feedback

We welcome your thoughts on this note. Feedback will help us prepare future versions. To comment on this note or seek any clarification, please contact our water source protection planning branch (details below), citing the note topic and version.

Manager, Water Source Protection Planning
Department of Water
168 St Georges Terrace
Perth Western Australia 6000
Telephone +61 8 6364 7600
Email waterquality@water.wa.gov.au

PO Box K822
Perth Western Australia 6842
Facsimile +61 8 6364 7601
National relay service 133 677

To locate our regional offices online, see www.water.wa.gov.au, then select *Contact us*.

This publication is available online at <www.water.wa.gov.au>select *Publications*> *find a publication* > *series browse*> *water quality protection notes*. For those with special needs it can be made available in alternative formats such as audio, large print, or Braille.

June 12-CR-6301



WQPN 6, February 2006

Vegetation buffers to sensitive water resources

Purpose

Native vegetation buffers to estuaries, reservoirs, watercourses, wetlands and production wells (drawing from the water table aquifer) provide the following environmental benefits:

- A filter that helps protect surface waters from pathogens, turbidity, nutrient-enriched run-off and waterborne spread of weed species. Buffers are particularly important down gradient of erosive soil such as disturbed land and unpaved roadways.
- Slow water movement into waterbodies, allowing time for remedial action in the event of chemical spills.
- Vegetation roots protect waterway banks from erosion and slow the progress of floodwaters.
- Provide a physical and visual barrier to limit unnecessary human and domestic animal access to sensitive waterways.
- Support waterway ecology by shading waters, providing food and habitat for aquatic fauna eg a natural source of food from leaf litter and shelter provided by fallen branches.
- Provide a home and migration corridors for native fauna.

Clean water resources used for drinking water, support to local ecology and social or commercial benefits, along with breathable air, rank as the most fundamental and important requirements to sustain communities. These water resources need to remain within defined quality limits to retain their value, and therefore need adequate protection. Many wetlands and waterways in WA have lost native vegetation margins, which increases the risk of contaminants entering the waterbody and causing fish deaths, turbidity, degraded water quality and algal blooms. This department supports retention, protection and where necessary restoration of adequate vegetated buffers between any land use activities that may pose a contamination risk and the margins of the State's surface and groundwater resources, as part of the State's water quality management strategy. A further aim of this note is to improve people's awareness of the need for vegetated buffers to both surface waterbodies and groundwater extraction points as an essential protective contaminant barrier to sustain the quality of these waters and maintain their values.

Vegetated buffers are key strategic elements among a series of protection barrier options that reduce the risk of contaminant impact on water quality. Other barriers include risk-awareness programs, risk avoidance (less contaminating materials used), land use activity constraints, spill containment facilities, best practice application controls for agricultural chemicals, spill-related intervention strategies, soil amendment to attenuate contaminants in the environment, wastewater treatment accompanied by monitoring, and isolation of contaminated waters.

The buffer retention objective may conflict with existing approved land uses, and raise social and economic challenges that present difficulties in the short term. This note aims to present technical information on buffer issues and help to define appropriate buffers to land use activities that may pose a threat to water quality.

The Department of Water is responsible for managing and protecting the State's water resources. It is also a lead agency for water conservation and reuse. This note offers:

- the Department's current views on establishing and maintaining protective vegetated buffers to vulnerable surface waterbodies to help sustain their values;
- guidance on acceptable practices used to protect the quality of Western Australian water resources; and
- a basis for the development of a multi-agency code or guideline designed to balance the views of industry, government and the community, while sustaining a healthy environment.

This note provides guidance on issues of environmental concern, and offers potential solutions based on professional judgement and precedent. Its use does not override any statutory obligation or Government policy statement. Alternative practical environmental solutions suited to local conditions may be considered. Recommendations provided should not be used by regulators in place of a site-specific assessment of any project's environmental risks. Any conditions set should consider the values of the surrounding environment, the safeguards in place, and take a precautionary approach. This note shall not be used as this Department policy position on a specific matter, unless confirmed in writing by the Department. The note may also be varied at our discretion, as new data becomes available.

Where a conflict arises between this Department recommendations and any proposed activity within a sensitive environment, the note may be used to assist negotiations with stakeholders. This Department's position is that the project proponent must demonstrate for diminished buffers that other protection measures ensure there is a lesser risk to water resource quality and the sustainability of downstream ecosystems, than if the recommended buffers were used.

Scope

This note provides guidance on retaining, maintaining and where necessary re-establishing vegetated buffers between land use activities (ie commercial, industrial, recreational, rural or residential uses) and sensitive water resources managed to retain their value for the community. Sensitive water resources are described in [Appendix C](#).

Recommendations

Form of buffers

This Department aims to promote and progressively foster the re-establishment and maintenance of vegetated buffers to waterbodies and gain broad acceptance of their value within the community. Buffer dimension selection tends to be controversial and may require a balanced outcome negotiated between competing interests. Buffer re-establishment within freehold land could affect land values and productivity in both rural and urban settings. Buffer form and dimensions may vary from site to site and sometimes within a particular site, depending on local conditions, risk mitigation measures proposed for projects, relative resource and community-driven values, length of time that the buffer needs to be effective and availability of resources. This leads to a range of buffer options which are discussed in this note.

1. *Vegetation retention* of existing undisturbed local provenance native plants should be standard practice beside waterways, wetlands and estuaries, where practical.
2. *Restoration of native vegetated buffers* which have been degraded or removed, should (where practical be restored) with native vegetation equivalent in type, form, density, and diversity to that occupying the area prior to land development. Planted buffers should consist of a mix of native trees, shrubs and groundcover. These buffers should be sustainable, with the least practical need for human intervention. Management activities may periodically be necessary to remove exotic weeds, for hazard reduction to prevent wild-fires and ensure public safety. More information on this topic is provided later under *Restoration of degraded buffers*.

3. *Buffer performance as a contaminant filter* should be effective and matched to the local conditions. Where practical buffer dimensions should be set using a scientific evaluation of the contamination pathways and expected attenuation, whilst considering:
 - a. the water resource's value to the community;
 - b. the scale of water quality risk and vulnerability;
 - c. extent of contaminant pressure on water quality;
 - d. maintenance of low stormwater travel velocities (typically less than half a metre/ second for a one year recurrence interval storm event);
 - e. other protective measures in place; and
 - f. the practicality of establishing and retaining effective vegetated buffers.
4. *Horizontal buffer distances* are measured at right angles to the margins of streams or waterbodies, while buffers are normally circular for water supply wellheads. Where margins to ephemeral waterways are unclear, buffers should be measured outward from grade changes defining run-off channels. Their form should provide for ease of field definition and plotting on geographic information systems (GIS).
5. *Riparian vegetation provides a natural boundary.* Buffers should be measured outward from any scientifically recognised dampland vegetation fringing the water resource or where the margins of missing riparian vegetation are uncertain, the wet season banks of the waterbody (excluding flood events). Typical riparian vegetation in south-west WA includes flooded gum, casuarina, bullich, blackbutt, melaleuca species (paper barks and tea trees), rushes and sedges.
6. *Buffer composition* should comprise under-storey vegetation (grasses and sedges), over-storey (tall shrubs, trees) and carbon-rich litter matching the density and diversity of undisturbed local native vegetation. Local, native grass filter strips upstream of buffers can improve nutrient, pathogen and sediment attenuation from wastewater spills or polluted run-off.
7. *Contamination prevention* is important with land use activities set up and operated to have minimal impact on buffers and associated water resources. Precautionary strategies to protect buffers from harm, erosion or smothering may include:
 - a. restricting land disturbance activities to the low rainfall seasons;
 - b. managing stock numbers and location to lower risks;
 - c. isolating potentially harmful chemicals;
 - d. immediate and effective chemical spill clean-up;
 - e. use of structural stormwater retention/ detention/ treatment systems (see Chapter 9 of *Stormwater Management Manual for Western Australia*);
 - f. preparation and implementation of environmental management plans; and
 - g. training of staff and contractors in good operational practice.
8. *Land slope* should influence the setting of buffers widths. Buffers should be progressively increased where land slopes exceed one in ten. Buffers should be widened by five metres for each stepped increase in slope above a gradient of one in ten, until the slope reaches a gradient of one in seven. Slopes exceeding one in seven are generally considered too steep for development unless effective engineered erosion control systems are in place (see diagram at [Appendix D](#)).
9. *Vegetation density* should influence buffer dimensions. Buffers should be progressively widened in proportion to reduced vegetation cover (ie doubled if only half of natural groundcover remains). Where less than half of the original vegetation cover remains on erosive soils, the site should be rehabilitated then effectively revegetated prior to resuming any land use to avoid the growth of erosion channels.

10. *Roads or service corridors* may cross buffer zones, but these should occupy the minimum practical area of the buffer. Necessary measures should be installed eg fencing to limit human and livestock intrusion, and stormwater management systems to limit deterioration of the buffer and the protected waters.
11. *Unpaved roads* pose a risk to waterbodies due to stormwater causing surface erosion and associated water channelling which increases the rate of contaminated water movement. Unpaved roads include public and private roads, logging tracks, mining roads, road-work deviations, and access tracks for surveillance and fire-fighting purposes. Roads (where essential) should cross buffers at right angles to the stream alignment and include run-off distribution channels to drain turbid water into filter vegetation. [Appendix D](#) displays a typical layout of protective drainage measures. Pedestrian and bridle trails normally do not require drainage controls unless containing long runs with steep gradients.
12. *Turf buffers* to waterbodies (while preferred to bare soil), in rural settings are not well suited as filters for protecting surface water resource quality because:
 - a. shallow turf root systems offer a low level of stability to waterway banks;
 - b. significant maintenance effort is needed ie seasonal watering and mowing;
 - c. periodic application of nutrients and pesticides is needed to maintain visual appeal, with the resultant risk of leaching harmful residues into waterbodies;
 - d. they encourage human and animal access into surface waterbodies which may pose risks to water quality principally from litter, pathogens and turbidity; and
 - e. they don't offer shading, protective habitat or detritus needed to support diversity of aquatic life.

Constructed or rehabilitated natural wetlands adjacent to waterways or within the floodplain can assist with contaminant attenuation.

13. Factors influencing selection of buffer dimensions

- a. *Current environmental values* of the water resource requiring protection should be defined using the recommendations given in *National Water Quality Management Strategy* (see [Appendix A](#), reference 1). These values are progressively being defined in regional Natural Resource Management Strategies (see www.nrm.org.au). Definition of values should consider present dependencies, their local prevalence, water resource condition, potential implications of water pollution incidents, costs of corrective action and social needs. If the resource has been historically degraded and is subject to a restoration strategy, the target environmental values and buffer restoration may be influenced by the needs of both the local and wider community. Where water values have not yet been determined, the minimum default buffer dimensions described in this note should be used.
- b. *For waters with multiple environmental values*, the largest buffer dimension determined should prevail.
- c. *The nature and significance of risks to waters* posed to water values by land use activities should be determined. The type of contaminant (eg harmful pathogens, turbidity, nutrients, agricultural chemicals, petroleum hydrocarbons, and surfactants), the projected chemical contaminant load (normally expressed as kilograms /hectare/year), travel paths, seasonal variability of contaminant movement, and the level of control on contaminant loss exerted by the activity operator should be assessed.
- d. *Flooded margin variability* for the surface waters being protected. For surface waters, the edge of the flooded area may vary seasonally or in response to stormwater management systems. Groundwater levels also rise and fall seasonally in response to rainfall, evapo-transpiration and water extraction.

- e. *Significance of any contaminant discharge* to the water resource. Effects may be both environmental (ie affect the wellbeing of humans, animals or plants), social (eg people may lose confidence in the management of the resource) and economic (eg result in the loss of the resource to agricultural or industrial users).
- f. *Local practicalities* may influence the buffer form and dimensions eg poorly defined water values, local site constraints, economics, restoration timelines and practicality of measures necessary to restore a waterbody should contaminant loads cause harm. In remote areas of the State (eg the North West) where cyclonic event rainfall may periodically flood large areas, buffers should match natural riparian conditions that would prevail if human activity were not present. Intervention may only be necessary where water values are defined and land use pressures on waters are evident.
- g. *Effects of water contamination* on individuals and the community in the event of short term or permanent loss of downstream water resource values (eg disruption to ecosystems, harm to people, animals or crops, economic loss – production or land values, or reduced aesthetic appeal).
- h. *Technical considerations* including local meteorology, hydrology, topography, vegetation types, soil stratigraphy (including ion exchange particles linked to contaminant attenuation) and relevant physical, chemical or biological factors at the site, may influence the rate of travel or access of contaminants to the water resource. These factors are often described collectively as the *biophysical characteristics* of a site (see Appendix A, reference 5).
- i. *Land slopes* beside surface water resources exceeding one in ten are likely to increase the risk of water contamination, as stormwater run-off tends to aggregate into streams causing soil erosion and stream turbidity, especially on poorly vegetated and erosive soils.
- j. *Slope length for run-off* is important. Engineered drainage controls should be considered for erosive land slopes more than 80 metres long. Department of Agriculture publications cover this topic, see internet site www.agric.wa.gov.au, then search *Turbidity control*.
- k. *Natural vegetation type and density* (ie surface cover grasses and shrubs) remaining near waterbodies. Higher density vegetation with associated carbon-rich topsoil slows water movement and is likely to increase filtering of contaminants in any surface run-off.
- l. *History of land activity operators* in effectively containing contaminants on site. The extent and perceived effectiveness of risk mitigation measures at any contaminant source should be considered. Where uncertainty exists, a precautionary buffer dimension should be set.
- m. *Travel time* anticipated between the release of contaminants and effect on a water resource. A conservative travel time should be assumed on the basis of the maximum probable time to detect that a contaminant spill has occurred, and undertake remedial activities to effectively deal with the contaminant. A minimum of 12 hours effective response time should apply, unless the site is continuously supervised and on-site quick response and remedial resources are available.
- n. *Attenuation of stormwater or irrigation water run-off contaminants* within the buffer is likely to influence the discharge concentration of specific contaminants into waters eg soil particles, pathogens and nutrients.
- o. *Economic effects* of the buffer on the current land-holder or tenant's land use and viability. Where a diminished buffer is requested, other risk-lowering offsets may be warranted.
- p. *Wildfire control* measures for the buffer (eg fuel reduction) should be prepared and implemented in accordance with the *Bush Fires Act 1954*.
- q. *Maintenance of the buffer* to ensure the integrity, quality and effectiveness of its vegetation cover and its attendant ecosystems, when subject to normal environmental factors, should be considered. Too narrow a buffer is likely to limit seed distribution for regeneration and encourage weed invasion. Measures to prevent smothering of the buffer by stormwater eroded soils may also be necessary.

- r. *Planning or other environmental functions* that the buffer may need to perform including air quality (dust), aesthetic, bio-security or noise barrier, water access deterrent, community lifestyle benefit, terrestrial ecosystem maintenance function or native fauna shelter belts.
 - s. *Precedents for buffers* set at similar sites and for similar land uses, and other buffers or setbacks present at the site.
14. If exotic vegetation of significant commercial value (eg crops or plantation timber) presently occupies a buffer, local provenance native vegetation buffer as described should be re-established as soon as practical following harvest. This Department's advice should be sought prior to the use of any chemicals (eg fertilisers or pesticides) near sensitive waters.
 15. Default buffer dimensions may be varied at this Department's discretion, based on water resource management data, local environmental factors, perceived operator performance and the assessed level of risk to the water resource. Intermittent breaks in the continuity of buffers (typically around 20 metres in width) are acceptable to allow for road and services access/ crossings and wildfire control.
 16. Stormwater management systems should be used where overland run-off of waters with suspended particles is likely to occur, eg vegetated filter strips or constructed flow velocity controls such as sedimentation structures/ areas, should be installed and maintained upstream of the buffers to control sediment flow and deter smothering of buffer vegetation.
 17. Further research is desirable on buffer form, dimensions, and efficiency in various climatic conditions, soils, vegetation types and terrains. Monitoring of water quality to assess buffer performance in attenuating pathogens, sediment, nutrients and toxic residues is recommended. This may lead to revised guidance on buffer form and dimensions for maintenance of defined environmental values.
 18. Decisions on buffer extent and placement may be determined in the field by experienced environmental personnel after considering local conditions. A written record of the factors leading to variations to accepted buffer protocols should support such decisions.

Buffer definition to suit specific water values

Water supply source protection buffers are ideally determined using local scientific studies. Where these are impractical, empirical practice (as described in this note) may be used to define buffer dimensions. Minimum default water source buffers are proposed in [Table 1](#). This data should assist negotiations, allow for consideration of local environmental and social factors, focus on the relationship between buffer benefits to water resource quality versus the costs of loss of productive land at individual sites, foster timely decisions and alleviate disputes.

Within Public Drinking Water Source Areas

Public Drinking Water Source Area (PDWSA) is the collective name given to catchments declared to manage and protect any water source used for public drinking water supplies. PDWSAs describe areas defined under the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* or the *Country Areas Water Supply Act 1947*. PDWSAs include Underground Water Pollution Control Areas, Water Reserves (other than those declared under the *Land Administration Act 1997*) and Catchment Areas. For more data on related statutes and regulatory measures, see [Appendix B](#).

Land within PDWSAs, is allocated one of three classifications of land areas (called Priority 1, 2 and 3). The priority classification is based on present land use, zoning, strategic importance and vulnerability of the waterbody to harm. These areas are each managed in a different way to provide for effective protection of water quality.

Priority classifications are defined via site-specific *Drinking Water Source Protection Plans*, that are prepared in consultation with State government agencies, land-owners, local government, local industries and community stakeholders.

Additional constraints may apply in protection zones closer to the point where drinking water is harvested or stored. Unconfined aquifer bores have a *Wellhead Protection Zone* (WHPZ) and surface storages have a *Reservoir Protection Zones*. For additional explanatory information on PDWSAs, see this Department's Water Quality Protection Notes *Land use compatibility in Public Drinking Water Source Areas* and *Protecting Public Drinking Water Source Areas*. Protective buffers are not normally required for wells properly constructed into deep confined aquifers.

Land clearing controls apply under the *Environmental Protection Act 1986*. Application to clear native vegetation in riparian zones and associated buffers will normally be refused. In the Collie, Harris, Mundaring, Denmark, Kent and Warren river catchments additional clearing constraints under Part IIA of the *Country Areas Water Supply Act 1947* may affect buffers.

19. *Within Reservoir Protection Zones, Type A* (the largest) buffers are retained or restored by planning agencies and land users (see [Table 1 and Appendix D](#)). All activities should be excluded from these buffers except scientific research, buffer management and hazard reduction. Apart from essential services crossings, accessible areas within these zones should be fenced or signposted (if practical) to exclude unauthorised human and livestock access. RPZ areas are normally owned or managed by government agencies.
20. *Within Priority 1 and 2 managed areas, and adjoining perennial surface waters, Type B* (middle ranking) buffers as a minimum should be retained or restored (where practical) and maintained (see [Table 1 and Appendix D](#)). Priority 1 areas are managed to deter land development and avoid risk. Priority 2 areas are generally managed for continuity of low intensity rural activity and similar low contaminant risk land uses. In many areas native vegetation buffers have been historically removed to provide for water access, pastoral or cropping use. Incentives may be considered to encourage buffer restoration, or offset measures applied for any resultant loss of prior land use rights.
21. *Wellhead Protection Zones, Priority 3 managed areas and adjoining ephemeral surface waters* are areas of existing or planned intensive land use that co-exist with water extraction for public supplies. Vegetated buffers are desirable measures to lower contamination risks to water resources and may form part of a suite of protective measures. Protective measures include hazard reduction and containment, community awareness, monitoring and surveillance. *Type C* buffers should be retained in these areas, and supported by other barriers designed to protect water quality (see [Table 1 and Appendix D](#)).
22. Advice on best environmental management practice within PDWSAs for various land uses is given in documents on the web page <http://drinkingwater.water.wa.gov.au>, select *Publications*> *Guidelines* or *Water Quality Protection Notes*, or via project-specific conditions for subdivision or land development set by regulatory authorities.

Private water supply sources

23. It may be impractical to carry out detailed scientific studies to define site-specific buffers, eg for small-scale developments or where a potential vegetated buffer has been severely disturbed. Type B buffers (as a minimum) should be used by default for all drinking water sources (with associated water treatment and routine quality monitoring). Type C buffers (minimum) should be used by default for irrigation and other non-consumptive sources (see [Table 1](#)). These buffers should run from the top water level of surface water sources, the margins of their primary feeder streams, the infrastructure perimeter of production bores or wells; and outer bank of any aquaculture ponds receiving catchment run-off or seepage, to the external boundary of developed areas.

Buffer dimensions for water supply sources

24. Where detailed site-specific scientific studies are not used to define buffers, default buffers should be used for water sources (see [Table 1](#) for those recommended as suited to the South West of WA.). These have been set as a range rather than a single value, to offer practical flexibility in implementation. The default buffer dimensions have not been derived from rigorous local scientific studies, however information accessed in scientific literature search on the topic was considered during preparation of this note.

25. The diagrammatic representation of typical buffer configurations linked to stream order (ie number of stream tributaries) is provided at [Appendix D](#).
26. Specific buffer dimensions may consider the number of stream tributaries and their relative proximity to water sources, the anticipated need for protection of water-based biota and perceived difficulty of effective intervention if contaminants do cross the buffer. Recommended buffer widths may reduce according to the risk level of contamination to water resources. Any buffer reduction should consider the distance from the protected waterbody, extent of protective measures employed and the ability to detect hazards and effectively intervene prior to a significant contamination event.

Waterways and within defined Waterways Management Areas

27. Five Waterways Management Areas have been declared to provide special protection to estuaries and their associated waterways considered especially vulnerable to degradation. These are the Albany Waterways, Avon River, Leschenault Inlet, Peel–Harvey, and Wilson Inlet Management Areas. Wetland and waterway ecology protection buffers should be determined scientifically, based on an evaluation of local biophysical criteria. Information on establishing such buffers is described in the policy, position statements and guidelines described in [Appendix A](#), reference 5a. For further information, contact this Department's Catchment Management Branch.
28. Adequate vegetated separation buffers should be maintained between developed land areas and waterways to minimise the risk of degradation to water quality. These separation distances should be determined in accordance with the department's *Foreshore Policy No. 1*, with consideration of the waterway values, vulnerability and local biophysical criteria.
29. If a development is located within a Waterways Management Area, approval is required in accordance with the *Waterways Conservation Act 1976*. Information on waterway values and the location of these management areas can be obtained by contacting this Department's local regional office.
30. Local or regional natural resource management (NRM) strategies may apply to specific waterways where defined environmental protection measures such as buffer restoration are in progress and funding sources have been defined. For more information see the internet site www.nrm.org.au.

Swan River Trust Management Area

31. The Swan-Canning estuary and abutting reserves are managed by the Swan River Trust in accordance with the *Swan River Trust Act 1988*. Written approval from the Trust is necessary for any land or water-based development that may affect the estuary or its fringing vegetation.
32. *The Swan Canning Clean-up Program Action Plan 1999* encourages the use of fringing vegetation adjacent to waterways to limit turbidity and nutrient input into waterways that enter the estuary. Buffers should be defined as provided in the recommendations for waterways.

Table 1 - Default buffer dimensions to protect water supply sources

Buffer type	Application in PDWSAs	Buffer start point inside PDWSAs	Siting information outside of PDWSAs	Minimum buffer distance (metres)	
				Buffer the main protective barrier ^a	Multiple contaminant barriers used ^b
A	In Reservoir Protection Zones	<ul style="list-style-type: none"> Water-body margin of the reservoir when full. Flood fringe of feeder streams within 600 metres upstream of reservoir margins. 	<ul style="list-style-type: none"> Not applicable 	200 metres	100 metres
B	In Priority 1 or 2 areas	<ul style="list-style-type: none"> Riparian vegetation margin for perennial flow waterways. From the margins of surface waterbodies where water is used for human consumption. 	<ul style="list-style-type: none"> Flood fringe of 3rd order or greater ephemeral streams. Margin of dampland vegetation for all wetlands. 	50 metres	30 metres
C	In Wellhead Protection Zones, P3 areas	<ul style="list-style-type: none"> Exterior of wellheads drawing from the water table aquifer. Banks of first and second order ephemeral streams. 	<ul style="list-style-type: none"> Margins of water supply sources and drains. Banks of first and second order ephemeral streams and wetlands. 	30 metres	20 metres

Explanatory notes on determining minimum buffer dimensions:

- Buffer as prime barrier* is the dominant (primary) barrier to protect the waterbody from harm. This involves uncertain or reactive risk minimisation of water contamination, hazard containment and intervention capability by upstream land-use operators.
- Multiple contaminant barriers used* by land owner eg quality-assured contaminant containment processes, an environmental management system, effectively trained operators; routine supervision of land use activities, has demonstrated spill intervention capability, and an industrial track record of environmental contamination avoidance. Where other barriers are expected to be partially effective, a proportional increase of minimum buffer dimension towards the recommended main protective barrier dimension is recommended.

Wetlands

This Department aims to ensure that human disturbance, water extraction or contaminated waters do not harm sensitive environments. Wetlands (both perennial and seasonal) are susceptible to contamination both by poorly managed surface water run-off and polluted groundwater. Many important wetlands have been given a conservation status under Ramsar, Australian Department of Environment and Heritage or State Environmental Protection Policy. Wetland ecology protection buffers should be determined scientifically, based on an evaluation of local biophysical criteria. Information on establishing these buffers is described in the policy, position statements and guidelines described in [Appendix A](#), reference 5b. For further information, contact this Department's Catchment Management Branch.

33. Any land development or subdivision proposed within 500 metres of a wetland (including lakes, swamps, marshes and dampland) should be referred to this Department's regional office for assessment, and include supporting information on management of the environmental risks. Information on protection of wetlands is provided in the WA Planning Commission's *A land use planning guideline for determination of wetland buffer requirements*, and this department's *Position Statement: Wetlands*.
34. Separation buffers should be devised based on wetland values, their vulnerability, local biophysical factors and environmental management techniques employed to provide for adequate protection of the quality of water resources and adjoining wetland vegetation.

Buffers to the groundwater table

35. A vertical soil separation buffer of at least two metres from the surface to the highest groundwater table (end of wet season) should be maintained for free-draining soils. This vertical buffer limits soil waterlogging, aids installation of buried services eg septic tanks and water pipelines, and supports dryland agriculture. It allows for soil filtration and aerobic microbial degradation of leached organic contaminants prior to their reaching the water table.
36. Where irrigation of crops or landscape exists or is planned, a minimum vertical separation buffer of two metres should apply between the irrigated land surface and the maximum level of any groundwater mounding that surcharges the natural water table.
37. Care should also be taken that groundwater drawdown doesn't expose normally drowned peat beds to air which may generate acid sulphate soils. The Department of Environment's Land and Water Quality Branch can provide advice on susceptible areas.

Restoration of degraded buffers

38. Where a vegetation buffer has been removed, lost or become severely degraded as a result of land development, natural disaster (eg wild-fire) or emergency response, and is unlikely to recover during the following wet season, the land manager should undertake the following actions as soon as practical after event:
 - a. Record the extent and circumstances of the buffer loss.
 - b. Develop a plan to restore the vegetation eg replacement of any lost topsoil and seed-stock, (see [Appendix A](#), reference 5a). Restoration of the buffer should take into account the guidance provided in this note and any site specific advice given by this Department. Restoration actions should be complete within 24 months following the degradation event.
 - c. Contact the Department of Environment for information on native vegetation clearing controls (see [Appendix A](#), reference 5e). Special provisions may apply in six South West clearing control catchments described in Part IIA of the *Country Areas Water Supply Act 1947*.
 - d. Final completion of buffer restoration should be reported to this Department's local regional office.

Regulatory processes for approval of development or expansion of existing facilities

39. Where this Department has a decision-making role, and infrastructure, silviculture or intensive farming are proposed to be constructed or upgraded within a buffer zone described in this note, then proponents should supply a notice of intent to our local regional office, including the following details:
- a. Name of site owner and activity operator, address and contact details.
 - b. A site plan showing the location of the planned facility.
 - c. Description of the type and scale of activities that will be carried out.
 - d. The nature and approximate quantity of materials stored, handled or annually discharged on site.
 - e. Data on the soils, land contours, vegetation cover, existing infrastructure, and historical land usage that may be affected by the project facilities or their operation.
 - f. The extent of natural vegetation buffers to any water features or sources on the property and how they may be affected by the development proposal.
 - g. Description of the types and quantities of any waste that will be generated at the facility.
 - h. Proposals for chemical containment, material management and disposal (with design sketches).
 - i. Details of any contingency measures to minimise the impacts of chemical spills, and disposal of contaminated waters from fire, flood or other emergency.
40. For summary data on Government agency regulatory measures, and regulatory bodies, see Appendix B.

More Information

We welcome your views on this note. Feedback provided on this topic is held on Departmental file No. 13194. This note will be updated periodically as new information is received or industry/activity standards change. Updates are placed on our web page <http://drinkingwater.water.wa.gov.au> select *Publications*> *Water Quality Protection Notes*. To comment on this note or for more information, please contact the Water Source Protection Branch at our Atrium offices in Perth, phone (08) 6364 7600 (business hours), fax 6364 6525 or use *Contact us* at the Department's internet site www.water.wa.gov.au, or email drinkingwater@water.wa.gov.au citing the note topic and version.

Where a conflict arises between the Department of Water's recommendations and any proposed activity that may affect a sensitive water resource, this note may be used to assist negotiations with stakeholders. The negotiated outcome should not result in a greater risk to water quality than if the department's recommended protection measures were used.

The State Government in October 2005 announced the formation of the Department of Water. From January 2006, the Department of Water has assumed primary responsibility for managing the State's water resources. Once the Department of Water is legally established, it will replace many of the present functions of the present Water and Rivers Commission and operate in parallel (with separate powers) to the Department of Environment. The custodian and recommendations made in this note will then change to match the assigned responsibilities of the departments of Environment or Water.



Department of Water
Government of Western Australia

www.water.wa.gov.au
Telephone: (08) 6364 7600
Facsimile: (08) 6364 7601
Floor 4, The Atrium
168 St Georges Terrace Perth
Western Australia 6000



Department of Environment
Government of Western Australia

www.environment.wa.gov.au
Telephone: (08) 6364 6500
Facsimile: (08) 6364 6525
Floor 4, The Atrium
168 St Georges Terrace Perth
Western Australia 6000

Appendices

Appendix A - References and further reading

1. Australian Government - National Water Quality Management Strategy
 - a. ANZECC, ARMCANZ- *Australian and New Zealand Guidelines For Fresh and Marine Water Quality*, 2000;
 - b. ANZECC, ARMCANZ- *Australian Guidelines for Water Quality Monitoring and Reporting*, 2000;
see web page www.deh.gov.au/water/quality/nwqms/index.html.
 - c. ARMCANZ, NHMRC- *Australian Drinking Water Guidelines 2004*;
see web page www.health.gov.au/nhmrc/publications/synopses/eh19syn.htm.
 - d. ANZECC, ARMCANZ- *Policies and Principles*, 1994;
 - e. ANZECC, ARMCANZ- *Implementation guidelines*, 1998;
 - f. ANZECC, ARMCANZ- *Rural land uses and water quality- a community resource*, 2000
To obtain copies, see internet site bookshop@awa.asn.au, or request from a library service.
 - g. NRMCC - *Managing Natural Resources in Rural Australia for a Sustainable Future*, discussion paper 1999. See www.napswq.gov.au/publications/nrm-discussion.html

Acronyms

ANZECC : Australian and New Zealand Environment and Conservation Council,
ARMCANZ: Agriculture and Resource Management Council of Australia and New Zealand
NRMCC : Natural Resource Management Ministerial Council
NHMRC : National Health and Medical Research Council

2. Land and Water Resources Research and Development Corporation
Riparian Land Management Technical Guidelines, 1999;
see internet site www.lwa.gov.au, select *Publications*.
3. Environmental Protection Authority (WA)
Guidelines for Environment and Planning 1997;
see internet site www.epa.wa.gov.au, select *Guidance statements*.
4. WA Planning Commission/ Department for Planning and Infrastructure (WA)
 - a. Statements of Planning Policy (5AA):
 - SPP 2 *Environment and Natural Resources Policy*, 2003;
 - SPP 2.7 *Public Drinking Water Source Policy*, 2003;
 - SPP2.9 *Water Resource Policy*, Draft April 2004;
 - SPP4.1 *State industrial buffer policy*, 1997.
 - b. *A land use planning guideline for the determination of wetland buffer requirements* 2004.
see internet site www.wapc.wa.gov.au, select *Publications*.

5. Department of Environment (WA)

a. Waterways policy and guidelines

- Foreshore Policy 1 - Identifying the Foreshore Area, November 2002;
 - *Water Note 10 - Protecting riparian vegetation*;
 - *Water Note 11 - Identifying the riparian zone*;
 - *Water Note 17 - Sediment in streams*;
 - *Water Note 23 - Determining foreshore reserves*;
 - *Water Note 29 - Long term management of riparian vegetation*;
 - *River Restoration Report 4 - Revegetating riparian zones in south-west WA*, 1999.
- see internet site <http://waterways.environment.wa.gov.au>, select *Publications>Policies or Fact sheets*.

b. Wetlands policy and guidelines

- *Encouraging Wise Use of Perth's Wetlands, (broadsheet) 1995*;
 - *Position statement: Wetlands*, 2001;
 - *A Guide to Viewing Wetland Information on the WALIS website*;
 - *Wetlands of the Swan Coastal Plain*, 1996;
- see web page <http://wetlands.environment.wa.gov.au>, select *Publications*.

c. Stormwater

- *Stormwater Management Manual for Western Australia*
- see web page <http://stormwater.environment.wa.gov.au>, select *Publications>Manuals*.

d. Native vegetation protection - legal framework and guidance

see web page <http://nvp.environment.wa.gov.au>, select *Publications>Brochures*.

6. Department of Water (WA)

a. Water source protection policy, and Water Quality Protection Notes

- *Policy: Pesticide Use in Public Drinking Water Source Areas*, 2000
 - *Irrigation of vegetated land with nutrient-rich wastewater*;
 - *Land use compatibility in Public Drinking Water Source Areas*;
 - *Nutrient and irrigation management plans*;
- see web site: <http://drinkingwater.environment.wa.gov.au>, select *Publications>Policy or Water Quality Protection Notes*.

b. For the following Departmental data not presently available on the internet site, contact this Department's Water Source Protection Branch to obtain copies:

- *Proposals to update the current stream reserve system in the South West forest region of Western Australia*, (WRC 1999);
- *A review of stream and river logging buffers in Western Australia to ensure their adequacy in protecting waterways from salinity and turbidity supplied to the WA Conservation Commission* (WRC 2001);

c. For the location of Public Drinking Water Source Areas see

<http://apostle.environment.wa.gov.au/idelve/dowdataext/index.jsp> under *Environment* select *Public Drinking Water Source Areas*

7. Department of Conservation and Land Management (WA)

a. *W.A. Forest Management Plan 2004*;

b. *Manual of Management Guidelines for Timber Harvesting in Western Australia*, 1999.

see the web page www.naturebase.net/forest_facts/sy_review/manuals/index.html.

8. Forest Products Commission (WA)

Contractors timber harvesting manual – southwest native forests 2003;

see web page www.fpc.wa.gov.au/content/about_us/publications.asp.

9. Strahler, A. N. (1952). *Dynamic basis of geomorphology*. Geological Society of America Bulletin, 63, 923-938. See web page www.geog.soton.ac.uk/users/WheatonJ/Definitions/QD0109.htm.

Appendix B - Statutory requirements and approvals covering this topic may include:

What's regulated	Statute	Regulatory body/ agency
Subdivision of land	<i>Town Planning and Development Act 1928</i>	WA Planning Commission, Department for Planning and Infrastructure
Land zoning and development approval		Local Government (Council), Department for Planning and Infrastructure
Impact on the values and ecology of land or natural waters	<i>Environmental Protection Act, 1986, Part IV Environmental Impact assessment</i>	Minister for the Environment advised by the EPA;
Licensing of prescribed premises that pollute	<i>Environmental Protection Act 1986, Part V Environmental Regulation</i>	Department of Environment– regional office
Environmental impact on waters into managed waterways.	<i>Waterways Conservation Act 1976</i>	
Vegetation clearing controls	<i>Environmental Protection (Clearing of Native Vegetation) Regulations 2004;</i>	
	<i>Country Areas Water Supply Act 1947, Section 12AA</i>	
Buffers in existing public drinking water source areas	<i>Metropolitan Water Supply, Sewerage & Drainage Act, 1909</i>	Department of Water– regional office
	<i>Country Areas Water Supply Act 1947</i>	
Environmental impact on the Swan-Canning Estuary	<i>Swan River Trust Act 1988</i>	Swan River Trust
Management and protection of indigenous fauna and flora and lands vested in CALM	<i>Conservation and Land Management Act 1984</i>	Conservation Commission;
	<i>Wildlife Conservation Act 1950</i>	Department of Conservation and Land Management (CALM)
Petroleum, minerals and basic raw materials extraction	<i>Mining Act, 1978</i> <i>State Agreement Acts</i>	Department of Industry and Resources
Emergency response planning	<i>Fire and Emergency Services Authority of WA Act 1998</i>	Fire and Emergency Services Authority

Appendix C - Sensitive water resources

Clean water resources, used for drinking water, sustaining aquatic and terrestrial ecology, industry and aesthetic values, along with breathable air, rank as the most fundamental and important needs for viable communities. These water resources should remain within specific quality limits, and therefore require stringent and conservative protection measures. Guidance on water quality parameters necessary to maintain water values are published in the *National Water Quality Management Strategy Guidelines* (see web site www.deh.gov.au/water/quality/nwqms/index.html).

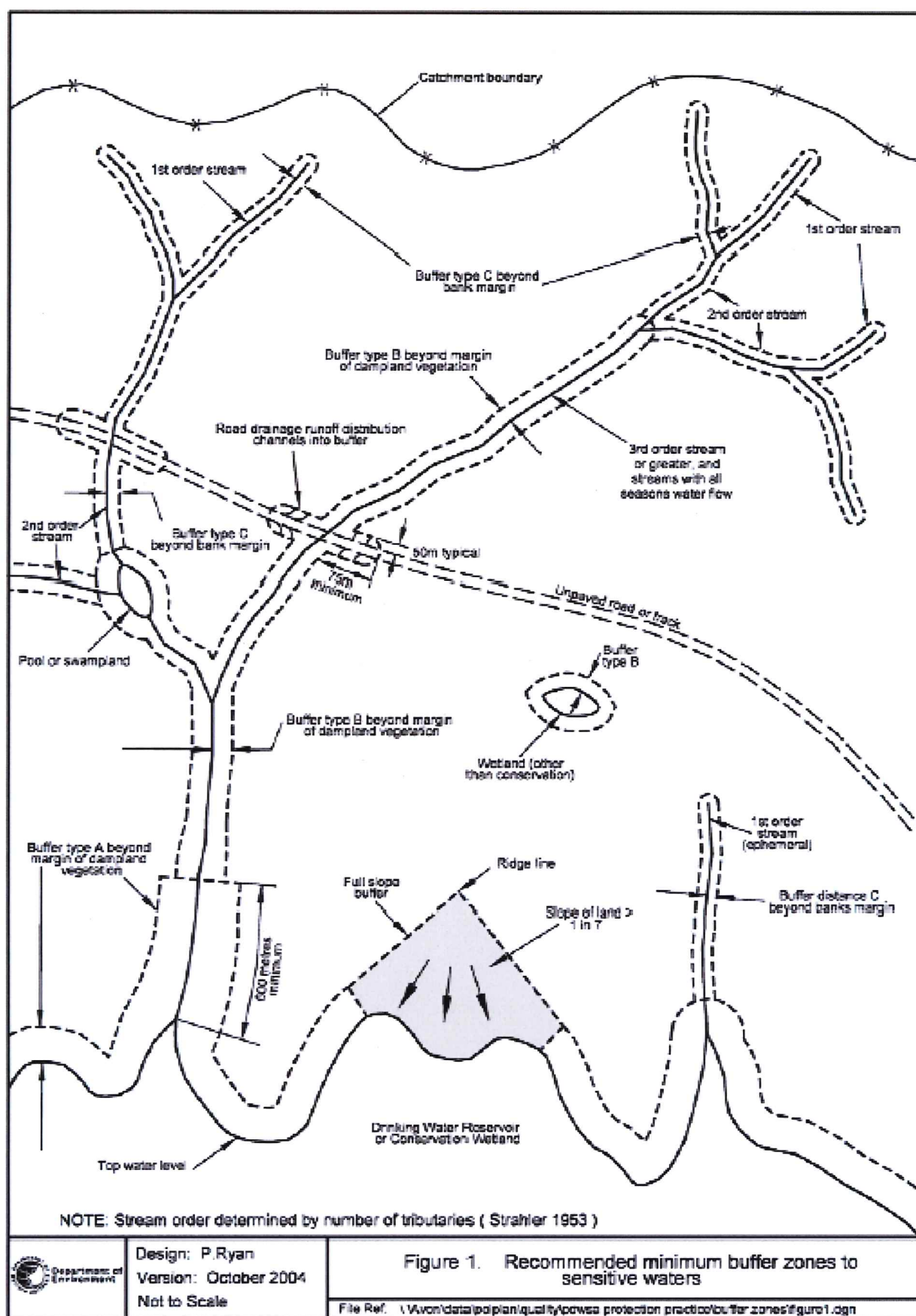
This Department strives to improve community awareness of catchment protection measures for surface water and groundwater aquifers as part of a multi-barrier protection approach to maintain the quality of water resources and their values.

To be considered sensitive, water resources must support one or more of the environmental values described below. Any activity or a land use will pose a risk to water quality if contaminants are able to be washed or leached into sensitive water resources in discernible quantities. These water resources include shallow groundwater accessed by water supply wells, surface waterways, estuaries, or wetlands. Community support for these values, setting of management objectives for water resources and implementation of a practical attainment strategy are seen as key elements in protecting and restoring the values of these water resources.

Sensitive water resources include:

- a. Those proclaimed or assigned as Public Drinking Water Source Areas (ie Water Reserves, Catchment Areas or Underground Water Pollution Control Areas) via the *Metropolitan Water Supply, Sewerage and Drainage Act 1909*, the *Country Areas Water supply Act 1947* or the *Health Act 1911*.
- b. Those used as private drinking water supply sources (ie for human or stock consumption).
- c. Waters with specific quality necessary to support commercial or industrial activities eg aquaculture, food processing or crop irrigation.
- d. Wetlands and waterways – pristine or conservation-valued, detailed as follows:
 - areas covering water resources defined via the *Environmental Protection Act 1986*, Part III eg *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992*;
 - waterways managed under the *Waterways Conservation Act 1976*, ie the Avon, Peel-Harvey, Leschenault, Wilson Inlet and Albany Waterways Management Areas;
 - the Swan-Canning Estuary and adjoining lands managed via the *Swan River Trust Act 1988*;
 - wetlands of regional, national and international importance, including but not limited to: Conservation category wetlands and Resource Enhancement category wetlands and wetlands listed within *A Directory of Important Wetlands in Australia* (see the Australian Department of Environment and Heritage web site which also provides information on Ramsar convention sites) www.deh.gov.au/water/wetlands/database/directory; and
 - groundwater aquifers that sustain important ecological functions.
- e. Locations where surface water or groundwater from the water table may be consumed or inhaled affecting people's health or well-being, eg garden, recreation or irrigation sources.
- f. Surface waterbodies and wetlands meeting recognised cultural or social needs, eg water resources used for community swimming, fishing or valued for their visual appeal.

Appendix D - Pictorial depiction of buffers to water supply sources



Hi Adrian

To summarize our phone conversation earlier today.

As per any fire that is the responsibility of LGA's or other land owners, if requested DBCA will endeavor to provide assistance and support to fires on FPC plantation (that is not on our managed lands).

However, fire responsibilities on our managed land will take priority (including fires on our land in other districts). As such DBCA assistance is not guaranteed and should not be considered part of any formal fire response planning.

Regards
Tony

Tony Mennen | District Manager | Wellington District
Parks and Wildlife Service | Department of Biodiversity, Conservation and Attractions
147 Wittenoom St Collie, WA 6225 | T: 08 9735 1988



Department of Biodiversity,
Conservation and Attractions



*We're working for
Western Australia.*

Chief Executive Officer

From: Guille, David <david.guille@fpc.wa.gov.au>
Sent: Thursday, 31 March 2022 12:27 PM
To: wambenger@westnet.com.au; bonniedale@activ8.net.au; salexander386@gmail.com; eleets72@gmail.com; pkerm1t1@gmail.com; garlicgully@gmail.com; kevinmoir@westnet.com.au; adrianpriceaoy@bigpond.com; charliewell@hotmail.com
Cc: Chief Executive Officer
Subject: FW: Tree farm - Plantation Shire application

Dear Councillor

I write to you in reference to item 10.3.2 in the Council Agenda for Thursday 31 March. I represent the applicant, the Forests Product Commission (FPC).

FPC are pleased with the recommendation to approve the application. This said, FPC do have reservations about proposed Conditions 5 and 6 which state (my underline added for emphasis):

5. *Prior to commencement of development, the applicant is to make suitable arrangements to ensure that adequate arrangements are made to respond to fires originating from or entering into the plantation. At a minimum, a heavy duty fire appliance fitted with in cab protection systems and manned by a crew trained in plantation fire suppression is to be stationed on site or within 30 minutes "time to arrival" response time from the subject property during the high risk fire season.*
6. *As an ongoing condition, suitably trained fire personnel are to be available to attend a fire at the subject land, within a 30 min time to arrival to property. These fire personnel must be trained in plantation fire prevention and response and equipped with all necessary equipment suitable for this use.*

The FPC considers the 30 minute response time criterion to be onerous and not reflective of the necessarily adaptive nature of fire response arrangements.

While the FPC maintains a heavy duty appliance and trained fire fighters in its Collie Office which is within 30 minutes of the proposed development these resources must be available to respond to fires across all of the FPC's plantation estate. Deployment of the Collie firefighting resources to incidents in other parts of the FPC estate would obviously impact the capacity to respond to fire on the McAlinden property within the prescribed 30 minute period. It is also industry practice for target response times to be structured around the forecast fire danger.

As per the Fire Management Plan component of the Plantation Management Plan supplied in support of the Development Application, the FPC has integrated fire response arrangements including:

- significant internal firefighting resources located across the South West including a roster for emergency availability
- a Memorandum of Understanding with the Parks and Wildlife Service's for responding to fires in FPC plantations
- membership of the Plantation Managers Fire Agreement group under which plantation industry managers commit resources to assist each other in the event of fire

It is the FPC's position that the above response arrangements coupled with the mitigation measures proposed constitute responsible and reasonable management of the risk of fire in the plantation estate

This said, the proximity of this McAlinden property to Collie, where FPC has access to resources, combined with a desire to plant this coming winter, means FPC want to get on with this project without delay.

In this context, I respectfully ask Councillors to consider moving a motion to amend these conditions, making them more valid and reasonable as follows:

Delete proposed Conditions 5 and 6 and replace with the following new condition (can keep the 'Advice on Condition 5' as is):

The landowner/ plantation manager is to ensure arrangements are made to respond to fires originating from or entering into the plantation as per the approved Fire Management Plan. Fire personnel must be trained in plantation fire suppression and response and equipped in accordance with the Guidelines for Plantation Fire Protection (DFES 2011).

Moving forward the FPC will continue to build its internal response capacity in line with the area of plantation estate on freehold land and would welcome opportunities to work with the Shire and other plantation managers on further cooperative arrangements for fire management (i.e. MOU between DFES, FIFWA, DBCA and participating Local Governments).

I thank you for your time in considering this submission and apologise for its late nature.

David Guille

A/Manager Forest Management

Forest Products Commission

444 Albany Hwy, Albany WA 6330

Phone: (08) 9845 5639 | Mobile: 0427 629 866 | Email: david.guille@fpc.wa.gov.au

Web: www.fpc.wa.gov.au | www.facebook.com/fpcwa | www.twitter.com/fpcwa



Forest Products
Commission

We acknowledge the Aboriginal
Western Australia as the
custodians of this land and
respects to their Elders, past and

This email (and any attachment) is intended only for the person to which it is addressed. If you are not the intended addressee of this email, please contact the sender and delete immediately as any further distribution of this material may be unlawful. Any loss directly or indirectly caused by unintended use of this message (or by any defects or viruses contained therein) is not the responsibility of the Forest Products Commission.

Suite 2 / 300 Rokeby Road, Subiaco Western Australia 6008 // Post Office Box 1217, Subiaco WA 6904
Telephone +61 8 9381 6270 // Facsimile +61 8 9381 6280 // www.axiomdp.com.au
Axiom Design Partners Pty Ltd ATF The ADP Unit Trust // ABN 55 276 982 887 // ACN 116 849 435



Tuesday, 1 March 2022

Shire of Boyup Brook
PO Box 2
Boyup Brook WA 6244
ea@boyupbrook.wa.gov.au

Attention: Chief Executive Officer

PROJECT TITLE: Boyup Brook Flax Mill Interpretive Signage
JOB/ESTIMATE #: -

Dear Sir/Madam,

Thank you for getting in touch with Axiom about the Flax Mill interpretive signage project at Boyup Brook.

For the purpose of this request I have provided an estimate to design and produce 1 x interpretive sign based on the information provided to date.

I have included installation estimate by our Perth signage contractor - though this may be an expensive option. We recommend sourcing a more local signage contractor to do the fabrication and installation. In this case we would supply a print-ready PDF to the local sign company with an indicative drawing / plan for construction.

Also as this is a single sign, to keep costs down I don't feel it warrants a site visit by Axiom.

The proposed fabrication method allows for digital printing of full-colour maps, photos, illustrations etc for the interpretive content, allowing more flexibility for the type of content to be included on the sign. The printed ACM panels are a durable and cost-effective signage method and easily replaced if they are damaged or need updating.

This is a simple interpretive sign style and offers good value - though a more considered design approach could offer a solution that further enhances the location and creates better visitor engagement.

I hope that's enough information for you to go on, should you have any questions or if any items require further clarification, please don't hesitate to contact me 0414 389 632.

Kind Regards,

A handwritten signature in black ink, reading "Sean Elsegood".

Sean Elsegood
Creative Director

PROJECT TITLE: Boyup Brook Flax Mill Interpretive Signage
JOB/ESTIMATE #: -

Interpretive sign - approx H 4500 x W 1800 mm and D 50mm
 Full colour digital image printed to ACM panel
 Mounted to corrugated shed wall - method to be determined

All content (IE text, photographs, illustrations, maps, diagrams etc) to be supplied by the client in appropriate digital formats - or can be arranged and managed by Axiom at additional cost.

DESIGN & DEVELOPMENT	Qty / Hrs	Amount \$
Initial Concept and Design Development	6	\$1,200.00
Final Layout, Artwork Setup and documentation (inc basic image / photo preparation, setup of print-ready PDF)	8	\$1,200.00
Colour visual / proof allowance	1	\$150.00
Project Management (+10%)	1	\$255.00
SUB-TOTAL (ex GST)		\$2,805.00
FABRICATION	Qty	Amount \$
SIGN SIZE W 4500 x H 1800 x D 50 mm 3mm ACM panel with full-colour digital printed and laminated vinyl to front face To be wrapped around 50mm aluminium SHS / angle backing frame	1	\$2,520.00
Project Management (+10%)	1	\$252.00
SUB-TOTAL (ex GST)		\$2,772.00
GRAND-TOTAL (ex GST)		\$5,577.00
INSTALLATION ALLOWANCE - OPTION	Qty	Amount \$
2x man team to install during normal business hours Presume install can be done using ladders, no allowance for EWP (elevated work platform) Includes travel and overnight stay	1	\$2,700.00

ALL PRICES QUOTED SUBJECT TO INCIDENTAL COSTS (couriers etc) and GST.

Please Note:

- A typical consultation and project management allowance has been included in the above fees, however should it be greatly exceeded Axiom reserve the right to bill the additional at our standard hourly rates.
- Fabrication is an estimate only and may be subject to change once design, construction methodology and final quantities have been confirmed. Signage fabrication estimate is valid for 30 days.
- Allowance has been made for printed colour visuals, should it be greatly exceeded Axiom reserve the right to bill for additional colour visuals
- Allowance for 1 set of revisions to supplied artwork.
- No allowance for illustrating or photography
- No allowance for high resolution scanning or sourcing of imagery has been included.
- Assume all text and content to be provided by the client in appropriate formats.
- No allowance for site visit, if required additional fee of \$1600 / day (+GST)
- Estimates may be subject to change based upon scope changes or requirements.

Approval of estimate implies acceptance of our Terms & Conditions
<http://www.axiomdp.com.au/terms-and-conditions/>

Executive Assistant

From: Sean Elsegood <sean@axiomdp.com.au>
Sent: Wednesday, 2 March 2022 2:15 PM
To:
Subject: Re: Interpretive sign - Boyup Brook ESTIMATE
Attachments: Boyup Brook Flax Mill Interp Sign Estimate.pdf

I hope all is well in your part of the world

Sorry for delay in getting back to you – I have been waiting on quotes from sign suppliers and so far only one has got back to me

Looking at the information you have provided my understanding is that we're looking at designing an interpretive infographic outlining the steps of the flax production process, using images and text supplied by yourself.

The simplest and most cost-effective type of sign would be a **full colour digital print to ACM panel**, and then mounted to the shed wall.

A good example of this type of sign we have done, is the Mission Cottage Interpretive Centre in New Norcia - see pics below

Attached is our estimate for the design and production of a single 4500 x 1800mm interpretive sign as you have specified.

To keep costs down, it may be more cost-effective to use a sign company closer to Boyup Brook – we have done this in the past for clients in regional areas where practical or we manufacture the sign in Perth and then you pick it up and arrange installation locally. Our client New Norcia do this for some of their signs.

There are different ways to approach this interpretive sign – but hopefully this gives you a good starting point to set a budget

If you have any queries please feel free to contact me by reply email or 0414 389 632

Cheers

S

Kind Regards,

Sean Elsegood
Creative Director

axiom® Design & Brand Consultants.

Suite 2/300 Rokeby Road
Subiaco, Western Australia 6008

PO Box 1217, Subiaco WA 6904

CONFIDENTIALITY: This message together with any attachment is intended for the use of the person to whom it is addressed and contains information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for its delivery to the intended recipient, you are hereby notified that any dissemination, distribution or copying of it is strictly prohibited. Please notify us if you have received it in error, and otherwise take all necessary steps to delete it from any transient or permanent storage device or medium.



Executive Assistant

Subject: FW: interpretive sign - Boyup Brook Flax Mill

Dear Shire of Boyup Brook

Quote 1136-18322

Cost to supply Sign on ACM rigid panel sheet 4500x1800
\$2025+gst

Optional: Fabricate galv frame, This would be needed if wall is not flat to give premium look.
\$1530+gst

Travel and installation
\$760+gst

you have any questions please call.

Regards,

A business card for Steve Wiseman Signs. On the left is a cartoon illustration of a man in a cap and overalls holding a paintbrush. To the right of the illustration, the name 'Steve Wiseman' is printed in a large, bold, sans-serif font. Below the name are contact details: a phone icon followed by '9771 2458' and '0417 907 779', an email icon followed by 'steve@wisemansigns.com', a website icon followed by 'wisemansigns.com', a location pin icon followed by '6 Gandy Street, Manjimup', and social media icons for Facebook and Instagram followed by '@wisemansigns'. On the right side of the card is a diamond-shaped logo with the word 'WISEMAN' in small capital letters above the word 'Signs' in a large, stylized script font.

Steve Wiseman

9771 2458
0417 907 779

steve@wisemansigns.com

wisemansigns.com

6 Gandy Street, Manjimup

@wisemansigns

**WISEMAN
Signs**

This email is confidential. If you are not the intended recipient, you must not disclose or use the information contained in it. If you have received this email in error, please notify us immediately by return email and delete the email and any attachments. Any personal views or opinions expressed by the writer may not necessarily reflect the views or opinions of Wiseman Signs.

www.wisemansigns.com

Minutes



Rylington Park Committee Meeting
held in the Shire Grounds at
4.00 pm, Thursday 7 April 2022

Attendance

Cr R Walker – Shire President
Cr O'Connell – Deputy Shire President
Cr C Caldwell
Cr Kevin Moir
Cr Darren King
Mr Dale Putland
Mrs Carolyn Mallett
Mrs Maria Lane
Mr Marc Deas
Mrs Erlanda Deas
Mr Craig French (AWI)

Order of business:

1. Mr Craig French (AWI)
Spoke about the ongoing opportunities between AWI and Rylington Park.

Topics discussed:

- Provide training for the Primary/High School students in wool classing/shearing.
- Provide Practical workshops
- Scholarships and training opportunities
- Work Experience/ voluntary work in the shearing shed
- How to access money (State Government funding)

2. Marc and Erlanda Deas presented information on farm activities as below:

2.1 Rylington Park Report – 6 April 2022

Sheep

- Feeding sheep – grain and hay
- Preg scanned ewes mated to white Suffolk rams: scanning rate is 132% to mated numbers.
We have 9% dries which are mainly made up of maiden ewes.

- 48 wethers left yesterday.
- Check and treat sheep when necessary

Cropping

- Sold 136.98 ton oats for \$267/ton
- Changed crop plan – cut out lupins and seed more canola. Plan attached
- Signed contract for 50 ton canola @ \$1020 / ton
- Changed fertiliser contracts.
- Super was delivered and spread.
- Lime to be delivered tomorrow and will be spread
- Getting ready for seeding – rake, burn, getting seeder ready, etc.
- Got 2 quotes for seeding
- Spray thistles
- Pick up melons

Schools / Events

- Shearing school on at the moment. Have 14 students and they are shearing green tag ewes.
- Will work on a “train the trainer” day.
- Had virtual ladies day on 25 March. Painting was sold for \$750 which will go to Kids Cancer Support Group and the Ronald McDonald House in Perth. The event was recorded and will be shared on the Shire and Rylington Park’s Facebook pages.

General

- Collecting old wire & pushing up wood piles
- New fences at holding paddocks
- Te Pari sheep handler was delivered – need to install and change yards
- Shire started painting the lecture room and will carry on with the rest of the buildings. Richard will also fix wood work where needed, put in new fly screens, etc.
- Environmental Health Officer did follow-up visit.
- Ausmic Pest Control inspected buildings for termites and camp kitchen for the mice problem.
- Budget review
- Shire taking gravel from 2 paddocks at the moment

What lies ahead

- Shearing school 4-8 April
- Preg scanning 14 April
- Feeding sheep
- Fencing
- Water trough maintenance & installation
- Collecting old wire
- Order chemicals – knock downs and insecticides
- Seed cleaning organised – not sure of date yet

2.2 Ausmic Report

Please refer to attachment

2.3 Canola Contract

Please refer to attachment

2.4 Financials to end of March

Please refer to attachment

2.5 Health Officer Report

Please refer to attachment

2.6 Agronomy Program 2022

Please refer to attachment

Marc and Erlanda left the meeting at 4.45pm.

3. Previous Minutes

Committee Recommendation

MOVED: Cr Charles Caldwell

SECONDED: Cr Darren King

That the minutes of the Rylington Park Committee held on 17 March 2022 be confirmed as an accurate record.

CARRIED 5/0

Res 22/4/29

Next meeting will be held on Thursday, 12th May 2022 at 6pm.

Matt Chambers arrived at 5.03pm

There being no further business the Shire President, Cr Walker thanked all for attending and declared the meeting closed at 5.04pm.

Maria Lane left the meeting at 5.05pm

The meeting re-opened at 5.35pm.

4. Committee Recommendation

MOVED: Cr Charles Caldwell

SECONDED: Cr Helen O'Connell

The Rylington Park Committee recommend that Council considers expanding membership of the Rylington Park Committee to include three additional full voting members from the Rylington Park Management Inc and nominate Tristian Mead, Joshua Stretch and James Johnston.

CARRIED 5/0

Res 22/4/30

Matt Chambers advised that he had not received a response to a request from the Rylington Park Management Inc to utilise the Rylington Park facilities to host a reunion (BBQ with bonfire) for current and previous Committee members of Rylington Park Management Inc and their families. Matt was asked to provide a date and list of attendees for consideration.

Executive Assistant to follow up the above request.

Darren King re-addressed soil testing at Rylington Park to be carried out by an independent lab, for a comparative comprehensive analysis as the current soil test results indicated 2t/Ha application of lime, which is an unwarranted amount in 1 year. Richard commented that a similar comprehensive soil test would be required from CSBP to be measurable and comparable. Darren King to provide information to Committee members on the laboratory APAL's suite of soil and plant analysis for their consideration. Dale suggested ECU may be able to assist also.

5. Meeting closed at 5.54pm.