

## AORERE & PURAMAHOI LOW PLAINS ECOSYSTEM NATIVE PLANT RESTORATION LIST

<b>Locality:</b>	Extensive flood plains and low alluvial terraces of the lower reaches of the Aorere and Kaituna Rivers and the floodplains of the Puremahaia and Pariwhakaoho Rivers
<b>Topography:</b>	Low-lying, flat to gently sloping floodplains and terraces. Puremahaia and Pariwhakaoho plains bisected with numerous low gradient meandering streams. Aorere plains and terraces low-gradient feeder streams, cut-off river meanders and numerous flood channels. Extensive 4km wide delta system at Aorere River mouth.
<b>Soils and Geology:</b>	Alluvial, sandy and silty loams of moderately high fertility. Recently derived from a range of sedimentary rocks, schists, granites and marble. Mostly over 1 metre deep where overlying gravels. Swamp deposits in depressions and low-lying areas where drainage is impeded. Otherwise mostly well-drained. Flood-prone. Not drought-prone.
<b>Climate:</b>	Moderately high to high sunshine hours; frosts moderate; mild annual temperatures; semi-humid. Rainfall 1600mm on coast to 2400mm inland.
<b>Coastal influence:</b>	From Onahau Inlet to Pariwhakaoho River mouth, and from Collingwood to the base of Mt Burnett; up to ½ km inland.
<b>Original Vegetation:</b>	Tall podocarp-broadleaf forest dominated by kāhikatea, mataī, tōtara, northern rātā and pukatea, with limited riparian silver beech. Floodplains and deltas also with various successional stages of kānuka and mixed broadleaf forests, including kōwhai, lacebark and ribbonwood.
<b>Human Modification:</b>	Very little native vegetation remaining and almost no original vegetation except for parts of the Aorere River delta. Most wetlands drained. Strips of riparian vegetation in places, often dominated by exotic species.

[Refer to the Ecosystem Restoration map showing the colour-coded area covered by this list.]

### KEY

PLANTING RATIO	PLANT PREFERENCES	TYPE OF FOOD PROVIDED FOR BIRDS AND LIZARDS
<p><b>Early Stage</b> plants are able to establish in open sites and can act as a nursery for later stage plants by providing initial cover.</p> <p><b>Later Stage</b> plants need cover to establish.</p> <p>2 = plant commonly 1 = plant less commonly 0 = not suitable to plant at this stage</p>	<p><b>Wet, Moist, Dry, Sun, Shade, Frost, Saline</b></p> <p>1 = prefers or tolerates ½ = prefers or tolerates some 0 = intolerant of</p> <p><b>Plant in habitat type:</b></p> <p>C = coastal R = river banks (riparian) W = freshwater wetlands</p>	<p>F = Fruit/seeds N = Nectar B = Buds/foilage I = Insects</p>

PLANT SPECIES FOR AORERE & PURAMAHOI LOW PLAINS ECOSYSTEM		EARLY STAGE PLANTING RATIO	LATER STAGE PLANTING RATIO	PLANT PREFERENCES										Maximum Height (metres)	Food Type
Botanical Names	Māori & Common Names			Wet	Moist	Dry	Sun	Shade	Frost	Saline	Coast Only	Freshwater Wetland Only	Riparian Mostly		
<b>TREES</b>															
Alectryon excelsus	tītoki	0	2	0	1	1	0	1	0	0			15	FI	
Aristotelia serrata	makomako, wineberry	1	2	½	1	0	0	1	½	0			10	FBI	
Ascarina lucida	hutu	1	1	½	1	0	1	1	1	0			6	F	
Beilschmiedia tawa	tawa	0	1	0	1	0	0	1	0	0			20	FI	
Carpodetus serratus	putaputāwētā, marbleleaf	2	1	1	1	0	1	½	1	0			10	FBI	
Coprosma areolata	thin-leaved coprosma	1	2	0	1	½	½	½	½	0			5	FBI	

PLANT SPECIES FOR AORERE & PURAMAHOI LOW PLAINS ECOSYSTEM		EARLY STAGE PLANTING RATIO	LATER STAGE PLANTING RATIO	PLANT PREFERENCES										Maximum Height (metres)	Food Type
Botanical Names	Māori & Common Names			Wet	Moist	Dry	Sun	Shade	Frost	Saline	Coast Only	Freshwater Wetland Only	Riparian Mostly		
Coprosma grandifolia	raurekau	0	2	½	1	0	½	1	½	0				6	FB
Coprosma linariifolia	yellow-wood	1	1	0	1	½	1	1	½	0			R	6	F
Coprosma robusta	karamū	2	1	½	1	1	1	½	½	0				6	F
Coprosma rotundifolia	hairy coprosma	2	2	½	1	0	½	1	1	0				5	FB
Cordyline australis	tī kouka, cabbage tree	2	0	1	1	1	1	0	1	0				12	FNI
Coriaria arborea	tree tutu	2	0	½	1	1	1	0	½	0				6	F
Cyathea medullaris	mamaku, black treefern	0	2	½	1	0	0	1	0	0				16	I
Dacrycarpus dacrydioides	kāhikatea	1	2	1	1	0	½	½	1	0				60	FI
Dacrydium cupressinum	rimu	0	1	1	1	½	½	½	1	0				35	FI
Dicksonia fibrosa	whekī ponga	0	2	½	1	0	½	1	1	0				7	I
Dicksonia squarrosa	whekī	0	2	½	1	0	0	1	1	0				7	I
Dodonaea viscosa	akeake	2	0	0	1	1	1	0	½	0				7	I
Elaeocarpus dentatus	hīnau	0	1	½	1	0	½	1	½	0				18	FNBI
Elaeocarpus hookerianus	pōkākā	1	2	1	1	0	½	½	1	0				12	FI
Fuchsia excorticata	kōtukutuku, tree fuchsia	0	2	½	1	0	½	1	½	0				10	FNBI
Griselinia littoralis	papauma, broadleaf	1	2	0	1	1	1	1	1	0				12	FBI
Griselinia lucida	puka	0	2	0	1	1	1	½	0	0				8	FBI
Hedycarya arborea	porokaiwhiri, pigeonwood	0	2	0	1	1	1	½	½	0				8	FBI
Hoheria ovata	limestone lacebark	1	1	½	1	1	1	½	1	0				10	FI
Kunzea ericoides	kānuka	2	0	0	½	1	1	0	1	0				15	NI
Laurelia novae-zelandiae	pukatea	0	2	1	½	0	0	1	½	0				35	BI
Leptospermum scoparium	mānuka	2	0	1	1	1	1	0	1	½		W		8	NI
Lophomyrtus obcordata	rōhutu	1	1	½	1	1	1	1	½	0				8	FI
Macropiper excelsum	kawakawa, pepperwood	0	2	½	1	1	1	1	0	0				6	FI
Melicope simplex	poataniwha	1	1	0	1	1	1	1	½	0				5	
Melicytus ramiflorus	māhoe, whiteywood	0	2	½	1	1	½	1	½	0				10	FBI
Metrosideros robusta	northern rātā	1	2	½	1	½	½	0	½	0				30	N
Myoporum laetum	ngaio	1	0	0	1	1	1	0	0	½	C			10	FN
Myrsine australis	māpou	2	1	0	1	1	1	½	1	0				8	FI
Neomyrtus pedunculata	rōhutu	1	1	1	1	0	½	1	1	0				6	F
Nothofagus menziesii	silver beech	1	2	1	1	1	½	½	1	0			R	30	F
Pennantia corymbosa	kaikōmako	2	2	1	1	1	1	1	1	0				12	FNBI
Phyllocladus trichomanoides	tānekaha	1	1	0	1	1	1	½	½	0				20	I
Pittosporum eugenioides	tarata, lemonwood	2	1	½	1	1	1	½	1	0				12	FI
Pittosporum tenuifolium	kōhūhū	2	1	0	1	1	1	½	1	0				9	FBI
Plagianthus regius	manatū, lowland ribbonwood	2	1	½	1	1	1	0	1	0			R	15	FBI
Podocarpus totara	tōtara	2	2	0	1	1	1	½	1	0				30	FBI
Prumnopitys ferruginea	miro	0	1	½	1	0	½	½	1	0				25	FI
Prumnopitys taxifolia	mataī	1	2	0	1	1	1	½	1	0				25	FI
Pseudopanax arboreus	orihou, five finger	0	1	0	1	½	½	½	½	0				8	FNBI
Pseudopanax crassifolius	horoeke, lancewood	2	2	½	1	1	1	1	1	0				10	FNI
Pseudowintera axillaris	lowland horopito	0	1	½	1	0	0	1	½	0				7	F
Pseudowintera colorata	horopito	1	1	1	1	0	½	1	1	0				6	F
Raukawa edgerleyi	rauakawa	0	1	½	1	0	½	1	½	0				10	FI
Rhopalostylis sapida	nīkau	0	2	½	1	0	0	1	0	0				10	FNI
Schefflera digitata	patē, seven-finger	0	2	½	1	0	½	1	½	0				8	FBI
Sophora microphylla	kōwhai	2	1	0	½	1	1	½	1	0			R	10	NBI

PLANT SPECIES FOR AORERE & PURAMAHOI LOW PLAINS ECOSYSTEM		EARLY STAGE PLANTING RATIO	LATER STAGE PLANTING RATIO	PLANT PREFERENCES										Maximum Height (metres)	Food Type
Botanical Names	Māori & Common Names			Wet	Moist	Dry	Sun	Shade	Frost	Saline	Coast Only	Freshwater Wetland Only	Riparian Mostly		
<i>Streblus heterophyllus</i>	milkwood	1	1	0	1	1	½	½	½	0				10	FB
<i>Weinmannia racemosa</i>	kāmahi	0	1	½	1	½	½	½	1	0				10	NI
<b>SHRUBS</b>															
<i>Carmichaelia australis</i> var. "flagelliformis"	broom	2	0	½	1	1	1	½	1	½			R	2	NB
<i>Carmichaelia odorata</i> var. "glabrata"	river broom	2	0	1	1	½	1	½	1	0			R	2	NB
<i>Coprosma propinqua</i> ssp. <i>propinqua</i>	mikimiki	2	1	1	1	1	1	0	1	0				5	F
<i>Coprosma tayloriae</i>	tier coprosma	1	1	1	1	1	1	½	1	0				2	F
<i>Coprosma tenuicaulis</i>	swamp coprosma	2	1	1	1	0	1	½	1	0		W		3	F
<i>Hebe leiophylla</i> (=H. <i>gracillima</i> )	arching koromiko	1	0	½	1	½	½	½	1	0			R	2	
<i>Hebe salicifolia</i>	South Island koromiko	1	0	½	1	0	1	½	1	0		W		2	NBI
<i>Hebe stricta</i> var. <i>atkinsonii</i>	koromiko	2	0	½	1	½	1	½	½	0	C			2	NBI
<i>Meliccytus micranthus</i>	manakura, swamp māhoe	0	2	1	1	0	½	1	½	0				2	F
<i>Ozothamnus leptophyllus</i>	tauhinu, cottonwood	2	0	0	½	1	1	0	1	½				2	I
<i>Raukaua anomalus</i>	stout netting bush	1	2	½	1	½	½	1	1	0				2	FN
<b>CLIMBERS</b>															
<i>Clematis foetida</i>	dainty clematis	0	1	0	1	1	½	½	½	0				5	
<i>Clematis paniculata</i>	puawānanga, bush clematis	1	1	0	1	0	½	½	½	0				7	
<i>Freycinetia banksii</i>	kiekie	0	2	½	1	½	0	1	½	0				10	FNI
<i>Metrosideros diffusa</i>	rātā vine	0	1	½	1	0	½	1	½	0				10	N
<i>Metrosideros fulgens</i>	scarlet rātā vine	0	2	0	1	½	½	1	½	0				15	NI
<i>Metrosideros perforata</i>	lowland rātā vine	0	2	0	1	½	½	1	½	0				15	N
<i>Muehlenbeckia complexa</i>	scrambling pōhuehue	2	0	0	½	1	1	0	1	½				2	FBI
<i>Passiflora tetrandra</i>	kōhia, native passionvine	0	2	0	1	0	½	½	0	0				15	FN
<i>Rubus australis</i>	swamp lawyer	0	2	1	1	0	1	½	1	0				5	F
<i>Rubus schmidelioides</i>	shrub lawyer	0	1	0	1	1	1	½	1	0				5	F
<b>GRASSES, SEDGES, FERNS &amp; GROUND COVERS</b>															
<i>Acaena anserinifolia</i>	piripiri, bidibid	1	1	½	1	1	1	½	1	0				0.2	
<i>Asplenium bulbiferum</i>	mauku, hen and chicken fern	0	2	½	1	0	0	1	½	0				½	B
<i>Astelia fragrans</i>	ground lily	0	2	0	1	0	½	1	½	0				1.5	F
<i>Baumea rubiginosa</i>	stout pākahi sedge	2	0	1	1	0	1	0	1	0		W		1.5	I
<i>Blechnum filiforme</i>	climbing hardfern	0	2	0	1	1	0	1	0	0				5	
<i>Blechnum minus</i>	swamp kiokio	2	2	1	1	0	1	½	1	0		W		½	
<i>Blechnum novae-zelandiae</i>	kiokio	2	0	1	1	1	½	1	1	0				2	I
<i>Blechnum procerum</i>	beech hardfern	0	1	0	1	1	0	1	1	0				½	
<i>Bolboschoenus caldwellii</i>	pūrua grass	2	0	1	½	0	1	0	½	½	C	W		1	I
<i>Carex comans</i>	maurea	2	0	0	1	1	1	0	1	0				0.3	
<i>Carex flagellifera</i>	whip sedge	2	0	½	1	½	1	0	½	½				½	
<i>Carex forsteri</i>	forest sedge	2	0	0	1	1	½	½	½	0				1	
<i>Carex geminata</i>	toetoe rautahi	2	0	1	1	0	1	½	1	0		W		1.5	I
<i>Carex "geminata wide leaf"</i>	swamp rautahi	2	0	1	½	0	1	½	½	0	C	W		1.5	I
<i>Carex lessoniana</i>	peat rautahi	2	0	1	½	0	1	½	½	0		W		1	I
<i>Carex secta</i>	pūrei	2	1	1	½	0	1	½	1	0		W		2	I
<i>Carex solandri</i>	droop sedge	1	1	0	1	½	½	½	1	0				1	
<i>Carex testacea</i>	bootstrap sedge	2	0	0	1	1	1	½	1	0				0.6	
<i>Carex virgata</i>	pukio	2	1	1	½	0	1	½	1	0		W		1.5	I

PLANT SPECIES FOR AORERE & PURAMAHOI LOW PLAINS ECOSYSTEM		EARLY STAGE PLANTING RATIO	LATER STAGE PLANTING RATIO	PLANT PREFERENCES										Maximum Height (metres)	Food Type
Botanical Names	Māori & Common Names			Wet	Moist	Dry	Sun	Shade	Frost	Saline	Coast Only	Freshwater Wetland Only	Riparian Mostly		
<i>Chionochloa conspicua</i>	hunangāmoho, streambank snow-tussock	1	1	½	1	0	1	½	1	0			R	2	I
<i>Cortaderia richardii</i>	South Island toetoe	2	0	1	1	1	1	0	1	0				2	I
<i>Cyperus ustulatus</i>	upoko tangata	2	0	½	1	½	1	0	½	½	C			1	F
<i>Eleocharis sphacelata</i>	kuta	2	0	1	0	0	1	0	1	0		W		2	I
<i>Gahnia xanthocarpa</i>	giant cutty sedge	2	1	1	1	0	1	1	1	0		W		2	F
<i>Hierochloa redolens</i>	karetū, holy grass	2	0	1	½	0	1	½	1	0		W		½	
<i>Hypolepis ambigua</i>	hypolepis	1	0	½	1	0	1	½	1	0				1	
<i>Juncus australis</i>	wiwi	2	0	½	1	0	1	0	1	0				1	
<i>Juncus edgariae</i>	wiwi	1	0	½	1	0	1	0	1	0				1	
<i>Juncus pallidus</i>	tall swamp rush	2	0	1	1	0	1	0	½	0		W		2	
<i>Juncus sarophorus</i>	blue wiwi	2	0	½	1	0	1	0	1	0				1	
<i>Libertia ixioides</i>	native iris	1	1	0	1	½	½	½	½	0				0.3	
<i>Microlaena avenacea</i>	bush ricegrass	1	2	½	1	½	½	1	1	0				½	
<i>Microsorium pustulatum</i>	hounds tongue fern	0	1	0	1	1	½	1	½	0				0.2	B
<i>Pellaea aff. falcata</i>	large button fern	0	1	½	1	½	0	1	½	0				0.3	
<i>Phormium cookianum</i>	wharariki, coastal flax	2	0	0	1	1	1	0	1	½			R	1.5	N
<i>Phormium tenax</i>	harakeke, swamp flax	2	0	1	1	½	1	0	1	0		W		2	N
<i>Pneumatopteris pennigera</i>	pākau, gully fern	0	2	0	1	0	0	1	½	0				1	I
<i>Polystichum neozelandicum</i> ssp. <i>zerophyllum</i> (=P. <i>richardii</i> )	lowland shield fern	0	1	0	1	½	0	1	½	0				½	
<i>Polystichum vestitum</i>	prickly shield fern	0	1	½	1	0	½	1	1	0				1	I
<i>Schoenoplectus tabernaemontani</i>	kāpungawhā, lake clubrush	2	0	1	½	0	1	0	½	½	C	W		2	I
<i>Typha orientalis</i>	raupō	2	0	1	½	0	1	0	1	½		W		3	
<i>Uncinia uncinata</i>	hookgrass	1	2	½	1	½	½	1	1	0				½	