

## Alternatives to Invasives

The Maui County Planting Plan (MCP) currently recommends for planting in Maui County a number of species which are known to be invasive or are believed to have high potential to be invasive in habitats in Hawaii and on other Pacific islands. This document lists recommendations of the Hawaiian Ecosystems at Risk project (HEAR) regarding alternative non-invasive species for each of these species, along with additional information from the MCP regarding cultivation use information about the recommended alternative species.

"Species to avoid" include those species in the MCP which have NOT passed the Hawaii-Pacific Weed Risk Assessment (HPWRA) process with an "OK" rating. The Hawaiian Ecosystems at Risk project (HEAR) recommends that only species which have PASSED the HPWRA with an "OK" rating be considered for planting (and only then as long as no other information exists indicating the species is or could be invasive). Details about the methodology and current results of the HPWRA are available online via links from: [www.hear.org/wra/](http://www.hear.org/wra/)

This list of alternatives was selected based on the MCP recommended use (category) for each species. More refined lists of alternatives could be produced based on additional criteria (also available in the MCP).

This document was produced by the Hawaiian Ecosystems at Risk project (HEAR) based on information in the current publicly-available Maui County Planting Plan and on publicly-available information posted on the Hawaii-Pacific Weed Risk Assessment system website (<http://www.botany.hawaii.edu/faculty/daehler/WRA/>) as of 07 June 2004.

If you have any questions or constructive comments about the information provided on this list, please contact the Hawaiian Ecosystems at Risk project (HEAR; <http://www.hear.org>) via e-mail at [webmaster@hear.org](mailto:webmaster@hear.org); via phone at (808) 984-3717; or via postal mail at P.O. Box 1272, Puunene (Maui), Hawaii 96784 (USA).

## Alternatives to Invasives

Species to AVOID\* : **Acacia confusa (Formosan koa)**

MCP use category : street tree - medium

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Barringtonia asiatica	35	35		upright:	open	med	poor	good	tol	No	white	SpSuAu	False	no	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
Bucida buceras (geometry tree)	30	25		upright: round	med	med	med	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),4
Callistemon viminalis (drooping bottlebrush)	25	20		upright: round	dense	med	med	good	mod	No	red	SpSu	False	no	False	False	no	(dry) med	low-med-high	low	Yes			2,(3),4
Cassia javanica (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
Colvillea racemosa (colvillea)	25	20		round	open	med	med	good	mod	No	orange	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	No			1,2,3,4,5
Cordia subcordata (kou)	30	25		upright: round	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
Eucalyptus cinerea (silver dollar eucalyptus)	35	25		upright:	dense	fast	med	good	mod	Yes			False	no	False	True	yes	dry-med	low-med-high	med	Yes			2,3
Eucalyptus gardneri	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
Eucalyptus torquata (coral gum)	35	30		upright: round	dense	fast	med	good	mod	No	pink/yellow, pink/white	Au	False	yes	False	False	no	dry-med	low	low	Yes			1,2,3,4,5
Ficus lyrata (fiddle leaf fig)	35	35		upright: round	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry) med	low-med	med	Yes			1,3,4,5
Metrosideros polymorpha (ohia lehua)	25	25		round	open	slow	med	good	sens	No	red,orange,	SpSuWi	False	no	False	False	no	(dry)	low-med-high	low	Yes			1,2,(3),4
Podocarpus elatus (podocarpus)	25	15		upright	med	med	med	med	sens	No			False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4
Pongamia pinnata	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry)	low	low	Yes			1,(3),5
Pritchardia hillebrandii (loulou palm)	25	15		upright	dense	slow	med	good	tol	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Pritchardia pacifica (Fiji fan palm)	30	15		upright	dense	slow	low	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Saraca indica	30	20		upright	med	med	med	med	sens	No	yellow/red		False	no	False	False	no	med-wet	low	low	No			1,4
Tabebuia heterophylla (pink tecoma)	35	25		upright: round	dense	med	med	med	mod	No	pink	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Veitchia joannis (Joannis palm, Fiji ivory palm)	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia montgomeryan	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia winin (Winin palm)	30	15		upright	open	fast	good	good	sens	No			False	no	False	False	no	med-wet	low	low	No			1,4

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## Alternatives to Invasives

Species to AVOID\* : **Acacia melanoxylon (blackwood acacia)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthingia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hernandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Acacia melanoxylon (blackwood acacia)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Adenantha pavonina (false wiliwili)**

MCPP use category : parking lot tree - 25' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia javanica (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
Cochlospermum vitifolium (buttercup tree)	35	25		upright: round	open	fast	poor	med	sens	No	yellow	Wi	False	no	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cordia subcordata	30	25		upright: round	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
Eucalyptus gardneri (blue mallet)	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
Hernandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Lagerstroemia speciosa	35	25		upright:	med	med	poor	med	sens	No	lavender	SpSu	False	no	False	True	no	(dry)	low-med	low	Yes			1,2,(3),4
Michelia champaca (orange champak, mulang)	30	25		upright: round	med	med	poor	med	sens	No	yellow/orange	SpSu	True	no	False	False	yes	(dry) med-wet	med	low	Yes			1,2,(3),4
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pongamia pinnata	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry)	low	low	Yes			1,(3),5
Sapindus saponaria (manele)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Barringtonia asiatica (hutu)	35	35		upright: round	open	med	poor	good	tol	No	white	SpSuAu	False	no	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
Bucida buceras (geometry tree)	30	25		upright: round	med	med	med	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),4
Callistemon viminalis	25	20		upright:	dense	med	med	good	mod	No	red	SpSu	False	no	False	False	no	(dry)	low-med-high	low	Yes			2,(3),4
Cassia javanica (pink/white shower tree)	30	25		upright:	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Colvillea racemosa (colvillea)	25	20		round	open	med	med	good	mod	No	orange	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	No			1,2,3,4,5
Cordia subcordata	30	25		upright:	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
Eucalyptus cinerea (silver dollar eucalyptus)	35	25		upright: round	dense	fast	med	good	mod	Yes			False	no	False	True	yes	dry-med	low-med-high	med	Yes			2,3
Eucalyptus gardneri (blue mallet)	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
Eucalyptus torquata (coral gum)	35	30		upright: round	dense	fast	med	good	mod	No	pink/yellow, pink/white	Au	False	yes	False	False	no	dry-med	low	low	Yes			1,2,3,4,5
Ficus lyrata	35	35		upright:	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry)	low-med	med	Yes			1,3,4,5
Metrosideros polymorpha (ohia lehua)	25	25		round	open	slow	med	good	sens	No	red,orange, yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low-med-high	low	Yes			1,2,(3),4
Podocarpus elatus	25	15		upright	med	med	med	med	sens	No			False	no	False	False	no	(dry)	low-med	low	No			1,2,(3),4
Pongamia pinnata (pongamia)	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),5
Pritchardia hillebrandii (loulou palm)	25	15		upright	dense	slow	med	good	tol	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Pritchardia pacifica	30	15		upright	dense	slow	low	good	tol	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Adenantha pavonina (false wiliwili)**

MCCP use category : parking lot tree - 25' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Saraca indica	30	20		upright	med	med	med	med	sens	No	yellow/red		False	no	False	False	no	med-wet	low	low	No			1,4
Tabebuia heterophylla (pink tecoma)	35	25		upright: round	dense	med	med	med	mod	No	pink	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Veitchia joannis (Joannis palm, Fiji ivory palm)	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia montgomeryan.	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia winin (Winin palm)	30	15		upright	open	fast	good	good	sens	No			False	no	False	False	no	med-wet	low	low	No			1,4

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## Alternatives to Invasives

Species to AVOID\* : **Ajuga reptans (ajuga, carpet bugleweed)**

MCPP use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Albizia lebbbeck (siris, white monkeypod tree)**

MCPP use category : park tree - medium

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Artocarpus heterophyllu	35	30		upright:	dense	med	good	good	mod	No			False	yes	False	False	yes	(dry)	low	low	Yes			1,(3),4
Artocarpus odoratissimus (marang)	35	20		upright	med	fast	good	med	mod	No			False	yes	False	True	yes	med-wet	low	med	Yes			1,4
Brachychiton acerifolius (Australian flame tree)	35	25		upright: round	open	fast	poor	good	mod	No	red	SuAu	False	no	False	True	yes	med	med	low	Yes			1,2,4
Cochlospermum vitifolium (buttercup tree)	35	25		upright: round	open	fast	poor	med	sens	No	yellow	Wi	False	no	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Lagerstroemia speciosa (giant crape myrtle)	35	25		upright: round	med	med	poor	med	sens	No	lavender	SpSu	False	no	False	True	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Livistona rotundifolia (Sadang palm)	30	10		upright	med	med	good	med	mod	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Michelia champaca (orange champak, mulang)	30	25		upright:	med	med	poor	med	sens	No	yellow/oran	SpSu	True	no	False	False	yes	(dry)	med	low	Yes			1,2,(3),4
Pandanus tectorius (hala, pandanus, screw pine)	35	25		round	dense	med	med	good	tol	No	white	SpSuAuWi	True	no	False	False	yes	(dry)	low	high	No			1,(3),4,5
Pisonia umbellifera (ulu, papala kepau)	25	20		upright: round	med	fast	good	poor	sens	No			False	yes	False	False	no	wet	low	low	Yes			1,4
Schizostachyum glaucifolium (ohe)	30	20		upright	dense	fast	good	med	sens	No			False	no	False	False	yes	wet	low	med	No			1,4
Swietenia mahagoni	40	25		round	dense	slow	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	low	Yes			1,2,(3),4
Theobroma cacao (cacao)	25	20		upright: round	dense	med	good	med	sens	No	yellow	SpSuAuWi	False	yes	False	False	no	med-wet	low	med	Yes			1
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4,
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright:	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-	low-med	med	Yes			1,3,4
Swietenia mahagoni (mahogany)	40	25		round	dense	slow	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-	low-med	low	Yes			1,3,4
Tamarindus indica	60	30		upright:	dense	med	med	good	mod	No	yellow/gree	SpSuAuWi	False	yes	False	False	no	dry-med-	low-med	low	Yes			1,3,4

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## Alternatives to Invasives

Species to AVOID\* : **Archontophoenix alexandrae (Alexandra palm)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforhthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hernandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Archontophoenix alexandrae (Alexandra palm)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Asparagus densiflorus (Sprenger's asparagus)**

MCPP use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Asystasia gangetica (coromandel)**

MCPPI use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Bauhinia monandra (St.Thomas tree)**

MCPP use category : street tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
<i>Andira inermis</i>	15	20		spreading	med	med	good	good	mod	No	lilac	SpWi	False	no	False	False	no	(dry)	low-med	low	No			1,(3),4
<i>Bolusanthus speciosus</i> (Rhodesian wisteria)	15	15		round	med	med	med	med	sens	No	blue/violet	SpWi	True	no	False	False	no	dry-med	low-med-high	low	No			2
<i>Callistemon citrinus</i> (bottlebrush)	20	15		upright: round	dense	med	med	good	mod	No	red	SpSuAuWi	False	no	False	False	no	dry-med	low-med-high	low	No			1,2,3,4
<i>Ceratonia siliqua</i>	20	20		upright:	med	med	poor	good	mod	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			1,2,3,4
<i>Cordia sebestena</i> (kou haole)	20	15		upright: round	dense	med	med	good	mod	No	red/orange	SpSuAu	False	yes	False	False	yes	dry-med-wet	low-med	med	No			1,3,4,5
<i>Crescentia cujete</i> (calabash tree)	20	20		round	dense	med	med	med	mod	No			False	yes	False	False	yes	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
<i>Diospyros sandwicensis</i>	12	15		spreading	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			3,4
<i>Eucalyptus platypus</i> (round-leaved moort)	15	10		upright	dense	fast	med	good	mod	No	yellow	SpSu	False	yes	False	False	no	dry-med	low	low	Yes			2,3,4,5
<i>Eucalyptus stoatei</i> (scarlet pear gum)	20	10		upright	open	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	dry-med	low	med	No			1,2,3,4,5
<i>Heritiera littoralis</i>	20	25		spreading	med	med	poor	med	tol	No			False	yes	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Kokia drynarioides</i> (kokio)	20	20		round	open	med	med	med	sens	No	red/orange	SpSuAu	False	no	False	True	yes	dry-med	low-med	low	No			1,2,3,4
<i>Lagerstroemia indica</i> (crape myrtle)	15	10		upright	open	fast	poor	med	mod	No	pink, white	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4,5
<i>Nestegis sandwicensis</i>	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	med	low	No			2,3,4
<i>Posoqueria latifolia</i> (tree jasmine)	15	10		upright: round	dense	fast	good	med	sens	No	white	SpSu	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
<i>Reynoldsia sandwicensis</i> (ohe makai)	20	20		round	med	med	poor	good	sens	No			False	no	False	True	yes	dry	med	low	No			3
<i>Schotia brachypetala</i> (schotia, tree fuchsia)	20	15		upright	med	slow	med	good	mod	No	red	SpSu	False	no	False	False	no	dry-med	low-med	low	No			2,3,4
<i>Thrinax parviflora</i>	20	10		upright	med	med	med	good	mod	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Veitchia merrillii</i> (Manila palm)	20	10		upright	open	slow	med	good	mod	No	white	SpSuAu	False	yes	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4

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## Alternatives to Invasives

Species to AVOID\* : **Calophyllum inophyllum (kamani)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforhthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hernandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Calophyllum inophyllum (kamani)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneale)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamani)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Swietenia mahagoni (mahogany)	40	25		round	dense	slow	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4

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## Alternatives to Invasives

Species to AVOID\* : **Carpobrotus edulis (hottentot fig, ice plant)**

MCPD use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Casuarina equisetifolia (ironwood (short leaf))**

MCCP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthingia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Casuarina equisetifolia (ironwood (short leaf))**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamani)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Chlorophytum comosum (spider plant)**

MCPD use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Chrysophyllum oliviforme (satin leaf)**

MCPPP use category : parking lot tree - 25' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
<i>Cassia fistula</i>	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
<i>Cassia javanica</i> (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
<i>Cochlospermum vitifolium</i> (buttercup tree)	35	25		upright: round	open	fast	poor	med	sens	No	yellow	Wi	False	no	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
<i>Cordia subcordata</i>	30	25		upright:	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
<i>Eucalyptus gardneri</i> (blue mallet)	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
<i>Hernandia sonora</i> (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
<i>Lagerstroemia speciosa</i>	35	25		upright:	med	med	poor	med	sens	No	lavender	SpSu	False	no	False	True	no	(dry)	low-med	low	Yes			1,2,(3),4
<i>Michelia champaca</i> (orange champak, mulang)	30	25		upright: round	med	med	poor	med	sens	No	yellow/orange	SpSu	True	no	False	False	yes	(dry) med-wet	med	low	Yes			1,2,(3),4
<i>Pachira aquatica</i> (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
<i>Pongamia pinnata</i>	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry)	low	low	Yes			1,(3),5
<i>Sapindus saponaria</i> (manele)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
<i>Thespesia populnea</i> (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
<i>Tipuana tipu</i>	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
<i>Barringtonia asiatica</i> (hutu)	35	35		upright: round	open	med	poor	good	tol	No	white	SpSuAu	False	no	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
<i>Bucida buceras</i> (geometry tree)	30	25		upright: round	med	med	med	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),4
<i>Callistemon viminalis</i>	25	20		upright:	dense	med	med	good	mod	No	red	SpSu	False	no	False	False	no	(dry)	low-med-high	low	Yes			2,(3),4
<i>Cassia javanica</i> (pink/white shower tree)	30	25		upright:	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
<i>Colvillea racemosa</i> (colvillea)	25	20		round	open	med	med	good	mod	No	orange	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	No			1,2,3,4,5
<i>Cordia subcordata</i>	30	25		upright:	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
<i>Eucalyptus cinerea</i> (silver dollar eucalyptus)	35	25		upright: round	dense	fast	med	good	mod	Yes			False	no	False	True	yes	dry-med	low-med-high	med	Yes			2,3
<i>Eucalyptus gardneri</i> (blue mallet)	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
<i>Eucalyptus torquata</i> (coral gum)	35	30		upright: round	dense	fast	med	good	mod	No	pink/yellow, pink/white	Au	False	yes	False	False	no	dry-med	low	low	Yes			1,2,3,4,5
<i>Ficus lyrata</i>	35	35		upright:	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry)	low-med	med	Yes			1,3,4,5
<i>Metrosideros polymorpha</i> (ohia lehua)	25	25		round	open	slow	med	good	sens	No	red,orange, yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low-med-high	low	Yes			1,2,(3),4
<i>Podocarpus elatus</i>	25	15		upright	med	med	med	med	sens	No			False	no	False	False	no	(dry)	low-med	low	No			1,2,(3),4
<i>Pongamia pinnata</i> (pongamia)	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),5
<i>Pritchardia hillebrandii</i> (loulou palm)	25	15		upright	dense	slow	med	good	tol	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
<i>Pritchardia pacifica</i>	30	15		upright	dense	slow	low	good	tol	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Chrysophyllum oliviforme (satin leaf)**

MCPD use category : parking lot tree - 25' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Saraca indica	30	20		upright	med	med	med	med	sens	No	yellow/red		False	no	False	False	no	med-wet	low	low	No			1,4
Tabebuia heterophylla (pink tecoma)	35	25		upright: round	dense	med	med	med	mod	No	pink	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Veitchia joannis (Joannis palm, Fiji ivory palm)	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia montgomeryana	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia winin (Winin palm)	30	15		upright	open	fast	good	good	sens	No			False	no	False	False	no	med-wet	low	low	No			1,4

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## Alternatives to Invasives

Species to AVOID\* : **Cinnamomum camphora (camphor tree)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforhthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hernandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Cinnamomum camphora (camphor tree)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kaman)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus religiosa (bo tree, peepul tree)	50	50		upright: round	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4,5
Jacaranda mimosifolia	40	40		upright:	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Samanea saman (monkeypod tree)	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4,5
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4

\*The Hawaiian Ecosystems at Risk project (HEAR) recommends that only species which have PASSED the Hawaii-Pacific Weed Risk Assessment (HPWRA) process with an "OK" rating be considered for planting (and only then as long as no other information exists indicating the species is or could be invasive). Details about the methodology and current results of the HPWRA are available online via links from: [www.hear.org/wra/](http://www.hear.org/wra/)

## Alternatives to Invasives

Species to AVOID\* : **Cinnamomum verum (cinnamon)**

MCP use category : parking lot tree - 35' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Mainten-ance	Provides shade	Foliage color	Propagation	Planting zone(s)
Ficus lyrata	35	35		upright:	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry)	low-med	med	Yes			1,3,4,5
Magnolia grandiflora (magnolia)	40	35		upright: round	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Barringtonia asiatica	35	35		upright:	open	med	poor	good	tol	No	white	SpSuAu	False	no	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
Bucida buceras (geometry tree)	30	25		upright: round	med	med	med	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),4
Callistemon viminalis (drooping bottlebrush)	25	20		upright: round	dense	med	med	good	mod	No	red	SpSu	False	no	False	False	no	(dry) med	low-med-high	low	Yes			2,(3),4
Cassia javanica (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
Colvillea racemosa (colvillea)	25	20		round	open	med	med	good	mod	No	orange	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	No			1,2,3,4,5
Cordia subcordata (kou)	30	25		upright: round	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
Eucalyptus cinerea (silver dollar eucalyptus)	35	25		upright:	dense	fast	med	good	mod	Yes			False	no	False	True	yes	dry-med	low-med-high	med	Yes			2,3
Eucalyptus gardneri	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
Eucalyptus torquata (coral gum)	35	30		upright: round	dense	fast	med	good	mod	No	pink/yellow, pink/white	Au	False	yes	False	False	no	dry-med	low	low	Yes			1,2,3,4,5
Ficus lyrata (fiddle leaf fig)	35	35		upright: round	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry) med	low-med	med	Yes			1,3,4,5
Metrosideros polymorpha (ohia lehua)	25	25		round	open	slow	med	good	sens	No	red,orange,	SpSuWi	False	no	False	False	no	(dry)	low-med-high	low	Yes			1,2,(3),4
Podocarpus elatus (podocarpus)	25	15		upright	med	med	med	med	sens	No			False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4
Pongamia pinnata	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry)	low	low	Yes			1,(3),5
Pritchardia hillebrandii (loulou palm)	25	15		upright	dense	slow	med	good	tol	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Pritchardia pacifica (Fiji fan palm)	30	15		upright	dense	slow	low	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Saraca indica	30	20		upright	med	med	med	med	sens	No	yellow/red		False	no	False	False	no	med-wet	low	low	No			1,4
Tabebuia heterophylla (pink tecoma)	35	25		upright: round	dense	med	med	med	mod	No	pink	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Veitchia joannis (Joannis palm, Fiji ivory palm)	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia montgomeryan	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia winin (Winin palm)	30	15		upright	open	fast	good	good	sens	No			False	no	False	False	no	med-wet	low	low	No			1,4

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## Alternatives to Invasives

Species to AVOID\* : **Citharexylum spinosum (fiddlewood)**

MCP use category : parking lot tree - 35' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Mainten-ance	Provides shade	Foliage color	Propagation	Planting zone(s)
Ficus lyrata	35	35		upright:	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry)	low-med	med	Yes			1,3,4,5
Magnolia grandiflora (magnolia)	40	35		upright: round	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Barringtonia asiatica	35	35		upright:	open	med	poor	good	tol	No	white	SpSuAu	False	no	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
Bucida buceras (geometry tree)	30	25		upright: round	med	med	med	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),4
Callistemon viminalis (drooping bottlebrush)	25	20		upright: round	dense	med	med	good	mod	No	red	SpSu	False	no	False	False	no	(dry) med	low-med-high	low	Yes			2,(3),4
Cassia javanica (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
Colvillea racemosa (colvillea)	25	20		round	open	med	med	good	mod	No	orange	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	No			1,2,3,4,5
Cordia subcordata (kou)	30	25		upright: round	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
Eucalyptus cinerea (silver dollar eucalyptus)	35	25		upright:	dense	fast	med	good	mod	Yes			False	no	False	True	yes	dry-med	low-med-high	med	Yes			2,3
Eucalyptus gardneri	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
Eucalyptus torquata (coral gum)	35	30		upright: round	dense	fast	med	good	mod	No	pink/yellow, pink/white	Au	False	yes	False	False	no	dry-med	low	low	Yes			1,2,3,4,5
Ficus lyrata (fiddle leaf fig)	35	35		upright: round	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry) med	low-med	med	Yes			1,3,4,5
Metrosideros polymorpha (ohia lehua)	25	25		round	open	slow	med	good	sens	No	red,orange,	SpSuWi	False	no	False	False	no	(dry)	low-med-high	low	Yes			1,2,(3),4
Podocarpus elatus (podocarpus)	25	15		upright	med	med	med	med	sens	No			False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4
Pongamia pinnata	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry)	low	low	Yes			1,(3),5
Pritchardia hillebrandii (loulou palm)	25	15		upright	dense	slow	med	good	tol	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Pritchardia pacifica (Fiji fan palm)	30	15		upright	dense	slow	low	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Saraca indica	30	20		upright	med	med	med	med	sens	No	yellow/red		False	no	False	False	no	med-wet	low	low	No			1,4
Tabebuia heterophylla (pink tecoma)	35	25		upright: round	dense	med	med	med	mod	No	pink	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Veitchia joannis (Joannis palm, Fiji ivory palm)	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia montgomeryan	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia winin (Winin palm)	30	15		upright	open	fast	good	good	sens	No			False	no	False	False	no	med-wet	low	low	No			1,4

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## Alternatives to Invasives

Species to AVOID\* : **Clusia rosea** (autograph tree, copey)

MCPP use category : street tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
<i>Andira inermis</i>	15	20		spreading	med	med	good	good	mod	No	lilac	SpWi	False	no	False	False	no	(dry)	low-med	low	No			1,(3),4
<i>Bolusanthus speciosus</i> (Rhodesian wisteria)	15	15		round	med	med	med	med	sens	No	blue/violet	SpWi	True	no	False	False	no	dry-med	low-med-high	low	No			2
<i>Callistemon citrinus</i> (bottlebrush)	20	15		upright: round	dense	med	med	good	mod	No	red	SpSuAuWi	False	no	False	False	no	dry-med	low-med-high	low	No			1,2,3,4
<i>Ceratonia siliqua</i>	20	20		upright:	med	med	poor	good	mod	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			1,2,3,4
<i>Cordia sebestena</i> (kou haole)	20	15		upright: round	dense	med	med	good	mod	No	red/orange	SpSuAu	False	yes	False	False	yes	dry-med-wet	low-med	med	No			1,3,4,5
<i>Crescentia cujete</i> (calabash tree)	20	20		round	dense	med	med	med	mod	No			False	yes	False	False	yes	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
<i>Diospyros sandwicensis</i>	12	15		spreading	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			3,4
<i>Eucalyptus platypus</i> (round-leaved moort)	15	10		upright	dense	fast	med	good	mod	No	yellow	SpSu	False	yes	False	False	no	dry-med	low	low	Yes			2,3,4,5
<i>Eucalyptus stoatei</i> (scarlet pear gum)	20	10		upright	open	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	dry-med	low	med	No			1,2,3,4,5
<i>Heritiera littoralis</i>	20	25		spreading	med	med	poor	med	tol	No			False	yes	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Kokia drynarioides</i> (kokio)	20	20		round	open	med	med	med	sens	No	red/orange	SpSuAu	False	no	False	True	yes	dry-med	low-med	low	No			1,2,3,4
<i>Lagerstroemia indica</i> (crape myrtle)	15	10		upright	open	fast	poor	med	mod	No	pink, white	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4,5
<i>Nestegis sandwicensis</i>	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	med	low	No			2,3,4
<i>Posoqueria latifolia</i> (tree jasmine)	15	10		upright: round	dense	fast	good	med	sens	No	white	SpSu	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
<i>Reynoldsia sandwicensis</i> (ohe makai)	20	20		round	med	med	poor	good	sens	No			False	no	False	True	yes	dry	med	low	No			3
<i>Schotia brachypetala</i> (schotia, tree fuchsia)	20	15		upright	med	slow	med	good	mod	No	red	SpSu	False	no	False	False	no	dry-med	low-med	low	No			2,3,4
<i>Thrinax parviflora</i>	20	10		upright	med	med	med	good	mod	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Veitchia merrillii</i> (Manila palm)	20	10		upright	open	slow	med	good	mod	No	white	SpSuAu	False	yes	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4

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## Alternatives to Invasives

Species to AVOID\* : **Cotoneaster pannosus (cotoneaster)**

MCPD use category : park tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Caesalpinia pulcherrima (dwarf poinciana)	15	15		round	open	fast	poor	good	tol	No	red/yellow	SpSuAuWi	False	no	False	False	no	dry-med-	low-med	low	No			1,3,4,5
Coccoloba uvifera	20	20		round	dense	med	med	good	tol	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			2,3,5
Dracaena draco (dragon tree)	15	20		upright: round	open	slow	med	good	tol	No	yellow	Wi	False	no	False	False	no	dry-med	low	low	No			3,4,5
Erythrina crista-galli (coral tree)	15	10		round	med	med	poor	good	tol	No	red	Sp	False	no	False	True	yes	dry-med	low	low	No			3,4,5
Erythrina sandwicensis	20	20		spreading	med	fast	poor	good	tol	Yes	red	SpSu	False	no	False	True	yes	dry-med	low	med	Yes			2,3,4
Gardenia brighamii (nanu)	15	15		round	dense	med	med	good	sens	No	white	SpSuWi	True	yes	False	False	no	dry-med	med	low	Yes			2,3,4
Gardenia taitensis (tiare, Tahitian gardenia)	20	15		round	med	med	good	med	sens	No	white	SpSuAuWi	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Gliricidia sepium (madre de cacao)	20	20		round	open	fast	poor	good	tol	No	violet	SpWi	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Hibiscadelphus giffardianus (hau kuauiwi)	20	15		upright: round	dense	med	med	med	sens	No	maroon	SpWi	False	yes	False	True	yes	med	med	med	No			2,4
Jatropha integerrima (rose-flowered jatropha)	15	15		round	open	med	poor	good	mod	No	red	SpSuAuWi	False	no	True	False	no	dry-med	low-med	low	No			3,4
Latania loddigesii (blue latan palm)	25	15		upright	dense	slow	med	med	mod	No	white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Michelia figo (banana shrub, ainahau)	15	15		round	dense	med	poor	med	sens	No	yellow/red	SpSuAuWi	True	no	False	False	no	(dry) med	low-med	low	Yes			2,(3),4
Musa acuminata (maia, banana)	6-30	6-30		upright	dense	fast	poor	med	sens	No	white	SpSu	False	yes	False	False	yes	(dry) med-wet	low-med	high	No			1,(3),4
Myrsine lessertiana	15	12		round	dense	slow	med	good	sens	No			False	yes	False	False	no	med-wet	med	med	No			2,4
Nesoluma polynesicum (keahi)	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry	low-med	low	No			3
Pisonia brunoniana (aulu, papala kepau)	15	15		round	med	med	poor	good	sens	No			False	yes	False	False	no	med	med-high	low	No			2,4
Pisonia sandwicensis	15	15		round	med	med	med	med	sens	No			False	yes	False	False	no	med	med	low	No			2,4
Pittosporum hosmeri (hawa)	12	10		round	med	slow	med	med	sens	No	white	SpWi	True	yes	False	False	no	med	med	med	No			2,4
Platyclusus orientalis (oriental arborvitae)	15	12		upright: spreading	dense	slow	med	good	sens	No			False	no	False	False	no	(dry) med	low-med-high	low	No			2,(3),4
Pleomele auwahiensis (hala pepe)	20	15		upright: round	med	med	poor	good	sens	No	yellow	Sp	False	yes	False	False	no	dry-med	med	low	No			2,3,4
Plumeria obtusa (Singapore plumeria)	20	15		round	dense	med	med	good	tol	No	white	SpSuAuWi	True	no	True	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
Plumeria rubra	20	15		round	dense	med	med	good	tol	No	red	SpSuAu	True	no	True	True	yes	dry-med	low-med	low	Yes			2,3,4,5
Pritchardia glabrata (loulou)	6	6		round	dense	slow	med	good	sens	No	yellow	SpSuWi	False	yes	False	False	no	(dry) med-wet	med	low	No			2,(3),4
Rauvolfia sandwicensis (hao)	20	15		upright: round	med	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			2,3,4
Sophora chrysophylla	15	15		round	med	slow	poor	good	sens	No	yellow	SpSu	False	yes	False	False	no	med	med-	med	No			2,4
Sophora tomentosa (silver bush)	15	15		round	med	med	poor	good	tol	No	yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Tournefortia argentea (beach heliotrope, tahinu)	25	25		round	dense	med	poor	good	tol	No	white	SpSuAuWi	False	no	False	False	yes	dry-med	low	med	Yes			3,5

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## Alternatives to Invasives

Species to AVOID\* : **Cupaniopsis anacardioides (tuckeroo, carrotwood)**

MCPP use category : street tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
<i>Andira inermis</i>	15	20		spreading	med	med	good	good	mod	No	lilac	SpWi	False	no	False	False	no	(dry)	low-med	low	No			1,(3),4
<i>Bolusanthus speciosus</i> (Rhodesian wisteria)	15	15		round	med	med	med	med	sens	No	blue/violet	SpWi	True	no	False	False	no	dry-med	low-med-high	low	No			2
<i>Callistemon citrinus</i> (bottlebrush)	20	15		upright: round	dense	med	med	good	mod	No	red	SpSuAuWi	False	no	False	False	no	dry-med	low-med-high	low	No			1,2,3,4
<i>Ceratonia siliqua</i>	20	20		upright:	med	med	poor	good	mod	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			1,2,3,4
<i>Cordia sebestena</i> (kou haole)	20	15		upright: round	dense	med	med	good	mod	No	red/orange	SpSuAu	False	yes	False	False	yes	dry-med-wet	low-med	med	No			1,3,4,5
<i>Crescentia cujete</i> (calabash tree)	20	20		round	dense	med	med	med	mod	No			False	yes	False	False	yes	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
<i>Diospyros sandwicensis</i>	12	15		spreading	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			3,4
<i>Eucalyptus platypus</i> (round-leaved moort)	15	10		upright	dense	fast	med	good	mod	No	yellow	SpSu	False	yes	False	False	no	dry-med	low	low	Yes			2,3,4,5
<i>Eucalyptus stoatei</i> (scarlet pear gum)	20	10		upright	open	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	dry-med	low	med	No			1,2,3,4,5
<i>Hertiera littoralis</i>	20	25		spreading	med	med	poor	med	tol	No			False	yes	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Kokia drynarioides</i> (kokio)	20	20		round	open	med	med	med	sens	No	red/orange	SpSuAu	False	no	False	True	yes	dry-med	low-med	low	No			1,2,3,4
<i>Lagerstroemia indica</i> (crape myrtle)	15	10		upright	open	fast	poor	med	mod	No	pink, white	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4,5
<i>Nestegis sandwicensis</i>	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	med	low	No			2,3,4
<i>Posoqueria latifolia</i> (tree jasmine)	15	10		upright: round	dense	fast	good	med	sens	No	white	SpSu	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
<i>Reynoldsia sandwicensis</i> (ohe makai)	20	20		round	med	med	poor	good	sens	No			False	no	False	True	yes	dry	med	low	No			3
<i>Schotia brachypetala</i> (schotia, tree fuchsia)	20	15		upright	med	slow	med	good	mod	No	red	SpSu	False	no	False	False	no	dry-med	low-med	low	No			2,3,4
<i>Thrinax parviflora</i>	20	10		upright	med	med	med	good	mod	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Veitchia merrillii</i> (Manila palm)	20	10		upright	open	slow	med	good	mod	No	white	SpSuAu	False	yes	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4

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## Alternatives to Invasives

Species to AVOID\* : **Dissotis rotundifolia (dissotis)**

MCPD use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Duranta erecta (golden dewdrop)**

MCPD use category : park tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Caesalpinia pulcherrima (dwarf poinciana)	15	15		round	open	fast	poor	good	tol	No	red/yellow	SpSuAuWi	False	no	False	False	no	dry-med-	low-med	low	No			1,3,4,5
Coccoloba uvifera	20	20		round	dense	med	med	good	tol	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			2,3,5
Dracaena draco (dragon tree)	15	20		upright: round	open	slow	med	good	tol	No	yellow	Wi	False	no	False	False	no	dry-med	low	low	No			3,4,5
Erythrina crista-galli (coral tree)	15	10		round	med	med	poor	good	tol	No	red	Sp	False	no	False	True	yes	dry-med	low	low	No			3,4,5
Erythrina sandwicensis	20	20		spreading	med	fast	poor	good	tol	Yes	red	SpSu	False	no	False	True	yes	dry-med	low	med	Yes			2,3,4
Gardenia brighamii (nanu)	15	15		round	dense	med	med	good	sens	No	white	SpSuWi	True	yes	False	False	no	dry-med	med	low	Yes			2,3,4
Gardenia taitensis (tiare, Tahitian gardenia)	20	15		round	med	med	good	med	sens	No	white	SpSuAuWi	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Gliricidia sepium (madre de cacao)	20	20		round	open	fast	poor	good	tol	No	violet	SpWi	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Hibiscadelphus giffardianus (hau kuauiwi)	20	15		upright: round	dense	med	med	med	sens	No	maroon	SpWi	False	yes	False	True	yes	med	med	med	No			2,4
Jatropha integerrima (rose-flowered jatropha)	15	15		round	open	med	poor	good	mod	No	red	SpSuAuWi	False	no	True	False	no	dry-med	low-med	low	No			3,4
Latania loddigesii (blue latan palm)	25	15		upright	dense	slow	med	med	mod	No	white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Michelia figo (banana shrub, ainahau)	15	15		round	dense	med	poor	med	sens	No	yellow/red	SpSuAuWi	True	no	False	False	no	(dry) med	low-med	low	Yes			2,(3),4
Musa acuminata (maia, banana)	6-30	6-30		upright	dense	fast	poor	med	sens	No	white	SpSu	False	yes	False	False	yes	(dry) med-wet	low-med	high	No			1,(3),4
Myrsine lessertiana	15	12		round	dense	slow	med	good	sens	No			False	yes	False	False	no	med-wet	med	med	No			2,4
Nesoluma polynesicum (keahi)	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry	low-med	low	No			3
Pisonia brunoniana (aulu, papala kepau)	15	15		round	med	med	poor	good	sens	No			False	yes	False	False	no	med	med-high	low	No			2,4
Pisonia sandwicensis	15	15		round	med	med	med	med	sens	No			False	yes	False	False	no	med	med	low	No			2,4
Pittosporum hosmeri (hawa)	12	10		round	med	slow	med	med	sens	No	white	SpWi	True	yes	False	False	no	med	med	med	No			2,4
Platyclusus orientalis (oriental arborvitae)	15	12		upright: spreading	dense	slow	med	good	sens	No			False	no	False	False	no	(dry) med	low-med-high	low	No			2,(3),4
Pleomele auwahiensis (hala pepe)	20	15		upright: round	med	med	poor	good	sens	No	yellow	Sp	False	yes	False	False	no	dry-med	med	low	No			2,3,4
Plumeria obtusa (Singapore plumeria)	20	15		round	dense	med	med	good	tol	No	white	SpSuAuWi	True	no	True	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
Plumeria rubra	20	15		round	dense	med	med	good	tol	No	red	SpSuAu	True	no	True	True	yes	dry-med	low-med	low	Yes			2,3,4,5
Pritchardia glabrata (loulou)	6	6		round	dense	slow	med	good	sens	No	yellow	SpSuWi	False	yes	False	False	no	(dry) med-wet	med	low	No			2,(3),4
Rauvolfia sandwicensis (hao)	20	15		upright: round	med	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			2,3,4
Sophora chrysophylla	15	15		round	med	slow	poor	good	sens	No	yellow	SpSu	False	yes	False	False	no	med	med-	med	No			2,4
Sophora tomentosa (silver bush)	15	15		round	med	med	poor	good	tol	No	yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Tournefortia argentea (beach heliotrope, tahinu)	25	25		round	dense	med	poor	good	tol	No	white	SpSuAuWi	False	no	False	False	yes	dry-med	low	med	Yes			3,5

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## Alternatives to Invasives

Species to AVOID\* : **Elaeocarpus angustifolius (blue marble tree)**

MCP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Elaeocarpus angustifolius (blue marble tree)**

MCPD use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Eriobotrya japonica (loquat)**

MCPP use category : park tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Caesalpinia pulcherrima (dwarf poinciana)	15	15		round	open	fast	poor	good	tol	No	red/yellow	SpSuAuWi	False	no	False	False	no	dry-med-	low-med	low	No			1,3,4,5
Coccoloba uvifera	20	20		round	dense	med	med	good	tol	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			2,3,5
Dracaena draco (dragon tree)	15	20		upright: round	open	slow	med	good	tol	No	yellow	Wi	False	no	False	False	no	dry-med	low	low	No			3,4,5
Erythrina crista-galli (coral tree)	15	10		round	med	med	poor	good	tol	No	red	Sp	False	no	False	True	yes	dry-med	low	low	No			3,4,5
Erythrina sandwicensis	20	20		spreading	med	fast	poor	good	tol	Yes	red	SpSu	False	no	False	True	yes	dry-med	low	med	Yes			2,3,4
Gardenia brighamii (nanu)	15	15		round	dense	med	med	good	sens	No	white	SpSuWi	True	yes	False	False	no	dry-med	med	low	Yes			2,3,4
Gardenia taitensis (tiare, Tahitian gardenia)	20	15		round	med	med	good	med	sens	No	white	SpSuAuWi	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Gliricidia sepium (madre de cacao)	20	20		round	open	fast	poor	good	tol	No	violet	SpWi	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Hibiscadelphus giffardianus (hau kuauiwi)	20	15		upright: round	dense	med	med	med	sens	No	maroon	SpWi	False	yes	False	True	yes	med	med	med	No			2,4
Jatropha integririma (rose-flowered jatropha)	15	15		round	open	med	poor	good	mod	No	red	SpSuAuWi	False	no	True	False	no	dry-med	low-med	low	No			3,4
Latania loddigesii (blue latan palm)	25	15		upright	dense	slow	med	med	mod	No	white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Michelia figo (banana shrub, ainahau)	15	15		round	dense	med	poor	med	sens	No	yellow/red	SpSuAuWi	True	no	False	False	no	(dry) med	low-med	low	Yes			2,(3),4
Musa acuminata (maia, banana)	6-30	6-30		upright	dense	fast	poor	med	sens	No	white	SpSu	False	yes	False	False	yes	(dry) med-wet	low-med	high	No			1,(3),4
Myrsine lessertiana	15	12		round	dense	slow	med	good	sens	No			False	yes	False	False	no	med-wet	med	med	No			2,4
Nesoluma polynesicum (keahi)	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry	low-med	low	No			3
Pisonia brunoniana (aulu, papala kepau)	15	15		round	med	med	poor	good	sens	No			False	yes	False	False	no	med	med-high	low	No			2,4
Pisonia sandwicensis	15	15		round	med	med	med	med	sens	No			False	yes	False	False	no	med	med	low	No			2,4
Pittosporum hosmeri (hawa)	12	10		round	med	slow	med	med	sens	No	white	SpWi	True	yes	False	False	no	med	med	med	No			2,4
Platycladus orientalis (oriental arborvitae)	15	12		upright: spreading	dense	slow	med	good	sens	No			False	no	False	False	no	(dry) med	low-med-high	low	No			2,(3),4
Pleomele auwahiensis (hala pepe)	20	15		upright: round	med	med	poor	good	sens	No	yellow	Sp	False	yes	False	False	no	dry-med	med	low	No			2,3,4
Plumeria obtusa (Singapore plumeria)	20	15		round	dense	med	med	good	tol	No	white	SpSuAuWi	True	no	True	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
Plumeria rubra	20	15		round	dense	med	med	good	tol	No	red	SpSuAu	True	no	True	True	yes	dry-med	low-med	low	Yes			2,3,4,5
Pritchardia glabrata (loulou)	6	6		round	dense	slow	med	good	sens	No	yellow	SpSuWi	False	yes	False	False	no	(dry) med-wet	med	low	No			2,(3),4
Rauvolfia sandwicensis (hao)	20	15		upright: round	med	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			2,3,4
Sophora chrysophylla	15	15		round	med	slow	poor	good	sens	No	yellow	SpSu	False	yes	False	False	no	med	med-	med	No			2,4
Sophora tomentosa (silver bush)	15	15		round	med	med	poor	good	tol	No	yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Tournefortia argentea (beach heliotrope, tahinu)	25	25		round	dense	med	poor	good	tol	No	white	SpSuAuWi	False	no	False	False	yes	dry-med	low	med	Yes			3,5

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## Alternatives to Invasives

Species to AVOID\* : **Ficus benjamina** (weeping fig)

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Ficus benjamina (weeping fig)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Ficus macrophylla (Moreton Bay fig)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Ficus macrophylla (Moreton Bay fig)**

MCPPI use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneale)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kaman)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Ficus microcarpa (Chinese banyan)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hernandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Ficus microcarpa (Chinese banyan)**

MCCP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Filicium decipiens (fern tree)**

MCPP use category : parking lot tree - 25' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
<i>Cassia fistula</i>	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
<i>Cassia javanica</i> (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
<i>Cochlospermum vitifolium</i> (buttercup tree)	35	25		upright: round	open	fast	poor	med	sens	No	yellow	Wi	False	no	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
<i>Cordia subcordata</i>	30	25		upright:	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
<i>Eucalyptus gardneri</i> (blue mallet)	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
<i>Hernandia sonora</i> (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
<i>Lagerstroemia speciosa</i>	35	25		upright:	med	med	poor	med	sens	No	lavender	SpSu	False	no	False	True	no	(dry)	low-med	low	Yes			1,2,(3),4
<i>Michelia champaca</i> (orange champak, mulang)	30	25		upright: round	med	med	poor	med	sens	No	yellow/orange	SpSu	True	no	False	False	yes	(dry) med-wet	med	low	Yes			1,2,(3),4
<i>Pachira aquatica</i> (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
<i>Pongamia pinnata</i>	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry)	low	low	Yes			1,(3),5
<i>Sapindus saponaria</i> (manele)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
<i>Thespesia populnea</i> (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
<i>Tipuana tipu</i>	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
<i>Barringtonia asiatica</i> (hutu)	35	35		upright: round	open	med	poor	good	tol	No	white	SpSuAu	False	no	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
<i>Bucida buceras</i> (geometry tree)	30	25		upright: round	med	med	med	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),4
<i>Callistemon viminalis</i>	25	20		upright:	dense	med	med	good	mod	No	red	SpSu	False	no	False	False	no	(dry)	low-med-high	low	Yes			2,(3),4
<i>Cassia javanica</i> (pink/white shower tree)	30	25		upright:	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
<i>Colvillea racemosa</i> (colvillea)	25	20		round	open	med	med	good	mod	No	orange	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	No			1,2,3,4,5
<i>Cordia subcordata</i>	30	25		upright:	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
<i>Eucalyptus cinerea</i> (silver dollar eucalyptus)	35	25		upright: round	dense	fast	med	good	mod	Yes			False	no	False	True	yes	dry-med	low-med-high	med	Yes			2,3
<i>Eucalyptus gardneri</i> (blue mallet)	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
<i>Eucalyptus torquata</i> (coral gum)	35	30		upright: round	dense	fast	med	good	mod	No	pink/yellow, pink/white	Au	False	yes	False	False	no	dry-med	low	low	Yes			1,2,3,4,5
<i>Ficus lyrata</i>	35	35		upright:	dense	med	med	good	tol	No			SpSuAuWi	False	no	False	yes	(dry)	low-med	med	Yes			1,3,4,5
<i>Metrosideros polymorpha</i> (ohia lehua)	25	25		round	open	slow	med	good	sens	No	red,orange, yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low-med-high	low	Yes			1,2,(3),4
<i>Podocarpus elatus</i>	25	15		upright	med	med	med	med	sens	No			False	no	False	False	no	(dry)	low-med	low	No			1,2,(3),4
<i>Pongamia pinnata</i> (pongamia)	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),5
<i>Pritchardia hillebrandii</i> (loulou palm)	25	15		upright	dense	slow	med	good	tol	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
<i>Pritchardia pacifica</i>	30	15		upright	dense	slow	low	good	tol	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Filicium decipiens (fern tree)**

MCPD use category : parking lot tree - 25' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Saraca indica	30	20		upright	med	med	med	med	sens	No	yellow/red		False	no	False	False	no	med-wet	low	low	No			1,4
Tabebuia heterophylla (pink tecoma)	35	25		upright: round	dense	med	med	med	mod	No	pink	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Veitchia joannis (Joannis palm, Fiji ivory palm)	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia montgomeryana	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia winin (Winin palm)	30	15		upright	open	fast	good	good	sens	No			False	no	False	False	no	med-wet	low	low	No			1,4

\*The Hawaiian Ecosystems at Risk project (HEAR) recommends that only species which have PASSED the Hawaii-Pacific Weed Risk Assessment (HPWRA) process with an "OK" rating be considered for planting (and only then as long as no other information exists indicating the species is or could be invasive). Details about the methodology and current results of the HPWRA are available online via links from: [www.hear.org/wra/](http://www.hear.org/wra/)

## Alternatives to Invasives

Species to AVOID\* : **Fraxinus uhdei (tropical ash)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthingia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Fraxinus uhdei (tropical ash)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Grevillea robusta (silky oak, silk oak)**

MCCP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforhthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hernandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Grevillea robusta (silky oak, silk oak)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Lantana camara (lantana)**

MCPP use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Lantana montevidensis (trailing lantana)**

MCPPI use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Livistona chinensis (Chinese fan palm)**

MCPP use category : street tree - medium

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Barringtonia asiatica	35	35		upright:	open	med	poor	good	tol	No	white	SpSuAu	False	no	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
Bucida buceras (geometry tree)	30	25		upright: round	med	med	med	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),4
Callistemon viminalis (drooping bottlebrush)	25	20		upright: round	dense	med	med	good	mod	No	red	SpSu	False	no	False	False	no	(dry) med	low-med-high	low	Yes			2,(3),4
Cassia javanica (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
Colvillea racemosa (colvillea)	25	20		round	open	med	med	good	mod	No	orange	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	No			1,2,3,4,5
Cordia subcordata (kou)	30	25		upright: round	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
Eucalyptus cinerea (silver dollar eucalyptus)	35	25		upright:	dense	fast	med	good	mod	Yes			False	no	False	True	yes	dry-med	low-med-high	med	Yes			2,3
Eucalyptus gardneri	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
Eucalyptus torquata (coral gum)	35	30		upright: round	dense	fast	med	good	mod	No	pink/yellow, pink/white	Au	False	yes	False	False	no	dry-med	low	low	Yes			1,2,3,4,5
Ficus lyrata (fiddle leaf fig)	35	35		upright: round	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry) med	low-med	med	Yes			1,3,4,5
Metrosideros polymorpha (ohia lehua)	25	25		round	open	slow	med	good	sens	No	red,orange,	SpSuWi	False	no	False	False	no	(dry)	low-med-high	low	Yes			1,2,(3),4
Podocarpus elatus (podocarpus)	25	15		upright	med	med	med	med	sens	No			False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4
Pongamia pinnata	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry)	low	low	Yes			1,(3),5
Pritchardia hillebrandii (loulou palm)	25	15		upright	dense	slow	med	good	tol	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Pritchardia pacifica (Fiji fan palm)	30	15		upright	dense	slow	low	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Saraca indica	30	20		upright	med	med	med	med	sens	No	yellow/red		False	no	False	False	no	med-wet	low	low	No			1,4
Tabebuia heterophylla (pink tecoma)	35	25		upright: round	dense	med	med	med	mod	No	pink	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Veitchia joannis (Joannis palm, Fiji ivory palm)	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia montgomeryan	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia winin (Winin palm)	30	15		upright	open	fast	good	good	sens	No			False	no	False	False	no	med-wet	low	low	No			1,4

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## Alternatives to Invasives

Species to AVOID\* : **Melaleuca quinquenervia (paperbark tree)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthingia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Melaleuca quinquenervia (paperbark tree)**

MCCP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (manele)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kaman)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Cassia fistula (golden shower tree)	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
Cassia javanica (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
Cochlospermum vitifolium (buttercup tree)	35	25		upright: round	open	fast	poor	med	sens	No	yellow	Wi	False	no	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cordia subcordata (kou)	30	25		upright: round	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
Eucalyptus gardneri (blue mallet)	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
Hernandia sonora	40	25		upright:	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Lagerstroemia speciosa (giant crape myrtle)	35	25		upright: round	med	med	poor	med	sens	No	lavender	SpSu	False	no	False	True	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Michelia champaca (orange champak, mulang)	30	25		upright: round	med	med	poor	med	sens	No	yellow/orange	SpSu	True	no	False	False	yes	(dry) med-wet	med	low	Yes			1,2,(3),4
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pongamia pinnata (pongamia)	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),5
Sapindus saponaria (manele)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Thespesia populnea	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry)	low-med	med	Yes			1,(3),5
Tipuana tipu (tipa)	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Melia azedarach (pride of India)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforhthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Melia azedarach (pride of India)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneale)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kaman)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Swietenia mahagoni (mahogany)	40	25		round	dense	slow	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4

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## Alternatives to Invasives

Species to AVOID\* : **Murraya paniculata (mock orange)**

MCPP use category : sound/wind/visual barrier

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Hibiscus tiliaceus	25	35		spreading	dense	fast	med	good	tol	Yes	yellow	SpSuWi	False	no	False	True	high	(dry)	low	high	Yes			2,(3),5
Scaevola sericea (naupaka kahakai, beach naupaka)	6	8		? was 4	dense	fast	poor	good	tol	No	white	SpSuWi	False	yes	False	False	no	dry-med	low	low	No			3,4,5

\*The Hawaiian Ecosystems at Risk project (HEAR) recommends that only species which have PASSED the Hawaii-Pacific Weed Risk Assessment (HPWRA) process with an "OK" rating be considered for planting (and only then as long as no other information exists indicating the species is or could be invasive). Details about the methodology and current results of the HPWRA are available online via links from: [www.hear.org/wra/](http://www.hear.org/wra/)

## Alternatives to Invasives

Species to AVOID\* : **Nerium oleander (oleander)**

MCPP use category : sound/wind/visual barrier

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Hibiscus tiliaceus	25	35		spreading	dense	fast	med	good	tol	Yes	yellow	SpSuWi	False	no	False	True	high	(dry)	low	high	Yes			2,(3),5
Scaevola sericea (naupaka kahakai, beach naupaka)	6	8		? was 4	dense	fast	poor	good	tol	No	white	SpSuWi	False	yes	False	False	no	dry-med	low	low	No			3,4,5

\*The Hawaiian Ecosystems at Risk project (HEAR) recommends that only species which have PASSED the Hawaii-Pacific Weed Risk Assessment (HPWRA) process with an "OK" rating be considered for planting (and only then as long as no other information exists indicating the species is or could be invasive). Details about the methodology and current results of the HPWRA are available online via links from: [www.hear.org/wra/](http://www.hear.org/wra/)

## Alternatives to Invasives

Species to AVOID\* : **Noronhia emarginata (Madagascar olive)**

MCPPP use category : parking lot tree - 25' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
<i>Cassia fistula</i>	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
<i>Cassia javanica</i> (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
<i>Cochlospermum vitifolium</i> (buttercup tree)	35	25		upright: round	open	fast	poor	med	sens	No	yellow	Wi	False	no	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
<i>Cordia subcordata</i>	30	25		upright: round	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
<i>Eucalyptus gardneri</i> (blue mallet)	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
<i>Hernandia sonora</i> (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
<i>Lagerstroemia speciosa</i>	35	25		upright:	med	med	poor	med	sens	No	lavender	SpSu	False	no	False	True	no	(dry)	low-med	low	Yes			1,2,(3),4
<i>Michelia champaca</i> (orange champak, mulang)	30	25		upright: round	med	med	poor	med	sens	No	yellow/orange	SpSu	True	no	False	False	yes	(dry) med-wet	med	low	Yes			1,2,(3),4
<i>Pachira aquatica</i> (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
<i>Pongamia pinnata</i>	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry)	low	low	Yes			1,(3),5
<i>Sapindus saponaria</i> (manele)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
<i>Thespesia populnea</i> (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
<i>Tipuana tipu</i>	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
<i>Barringtonia asiatica</i> (hutu)	35	35		upright: round	open	med	poor	good	tol	No	white	SpSuAu	False	no	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
<i>Bucida buceras</i> (geometry tree)	30	25		upright: round	med	med	med	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),4
<i>Callistemon viminalis</i>	25	20		upright:	dense	med	med	good	mod	No	red	SpSu	False	no	False	False	no	(dry)	low-med-high	low	Yes			2,(3),4
<i>Cassia javanica</i> (pink/white shower tree)	30	25		upright:	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
<i>Colvillea racemosa</i> (colvillea)	25	20		round	open	med	med	good	mod	No	orange	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	No			1,2,3,4,5
<i>Cordia subcordata</i>	30	25		upright:	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
<i>Eucalyptus cinerea</i> (silver dollar eucalyptus)	35	25		upright: round	dense	fast	med	good	mod	Yes			False	no	False	True	yes	dry-med	low-med-high	med	Yes			2,3
<i>Eucalyptus gardneri</i> (blue mallet)	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
<i>Eucalyptus torquata</i> (coral gum)	35	30		upright: round	dense	fast	med	good	mod	No	pink/yellow, pink/white	Au	False	yes	False	False	no	dry-med	low	low	Yes			1,2,3,4,5
<i>Ficus lyrata</i>	35	35		upright:	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry)	low-med	med	Yes			1,3,4,5
<i>Metrosideros polymorpha</i> (ohia lehua)	25	25		round	open	slow	med	good	sens	No	red,orange, yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low-med-high	low	Yes			1,2,(3),4
<i>Podocarpus elatus</i>	25	15		upright	med	med	med	med	sens	No			False	no	False	False	no	(dry)	low-med	low	No			1,2,(3),4
<i>Pongamia pinnata</i> (pongamia)	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),5
<i>Pritchardia hillebrandii</i> (loulou palm)	25	15		upright	dense	slow	med	good	tol	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
<i>Pritchardia pacifica</i>	30	15		upright	dense	slow	low	good	tol	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Noronhia emarginata (Madagascar olive)**

MCPP use category : parking lot tree - 25' spread

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Saraca indica	30	20		upright	med	med	med	med	sens	No	yellow/red		False	no	False	False	no	med-wet	low	low	No			1,4
Tabebuia heterophylla (pink tecoma)	35	25		upright: round	dense	med	med	med	mod	No	pink	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Veitchia joannis (Joannis palm, Fiji ivory palm)	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia montgomeryan.	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia winin (Winin palm)	30	15		upright	open	fast	good	good	sens	No			False	no	False	False	no	med-wet	low	low	No			1,4

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## Alternatives to Invasives

Species to AVOID\* : **Phyla nodiflora (lippia)**

MCPPI use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Pilea microphylla (artillery plant)**

MCPD use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Pimenta dioica (allspice)**

MCPP use category : street tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
<i>Andira inermis</i>	15	20		spreading	med	med	good	good	mod	No	lilac	SpWi	False	no	False	False	no	(dry)	low-med	low	No			1,(3),4
<i>Bolusanthus speciosus</i> (Rhodesian wisteria)	15	15		round	med	med	med	med	sens	No	blue/violet	SpWi	True	no	False	False	no	dry-med	low-med-high	low	No			2
<i>Callistemon citrinus</i> (bottlebrush)	20	15		upright: round	dense	med	med	good	mod	No	red	SpSuAuWi	False	no	False	False	no	dry-med	low-med-high	low	No			1,2,3,4
<i>Ceratonia siliqua</i>	20	20		upright:	med	med	poor	good	mod	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			1,2,3,4
<i>Cordia sebestena</i> (kou haole)	20	15		upright: round	dense	med	med	good	mod	No	red/orange	SpSuAu	False	yes	False	False	yes	dry-med-wet	low-med	med	No			1,3,4,5
<i>Crescentia cujete</i> (calabash tree)	20	20		round	dense	med	med	med	mod	No			False	yes	False	False	yes	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
<i>Diospyros sandwicensis</i>	12	15		spreading	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			3,4
<i>Eucalyptus platypus</i> (round-leafed moort)	15	10		upright	dense	fast	med	good	mod	No	yellow	SpSu	False	yes	False	False	no	dry-med	low	low	Yes			2,3,4,5
<i>Eucalyptus stoatei</i> (scarlet pear gum)	20	10		upright	open	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	dry-med	low	med	No			1,2,3,4,5
<i>Heritiera littoralis</i>	20	25		spreading	med	med	poor	med	tol	No			False	yes	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Kokia drynarioides</i> (kokio)	20	20		round	open	med	med	med	sens	No	red/orange	SpSuAu	False	no	False	True	yes	dry-med	low-med	low	No			1,2,3,4
<i>Lagerstroemia indica</i> (crape myrtle)	15	10		upright	open	fast	poor	med	mod	No	pink, white	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4,5
<i>Nestegis sandwicensis</i>	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	med	low	No			2,3,4
<i>Posoqueria latifolia</i> (tree jasmine)	15	10		upright: round	dense	fast	good	med	sens	No	white	SpSu	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
<i>Reynoldsia sandwicensis</i> (ohe makai)	20	20		round	med	med	poor	good	sens	No			False	no	False	True	yes	dry	med	low	No			3
<i>Schotia brachypetala</i> (schotia, tree fuchsia)	20	15		upright	med	slow	med	good	mod	No	red	SpSu	False	no	False	False	no	dry-med	low-med	low	No			2,3,4
<i>Thrinax parviflora</i>	20	10		upright	med	med	med	good	mod	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Veitchia merrillii</i> (Manila palm)	20	10		upright	open	slow	med	good	mod	No	white	SpSuAu	False	yes	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4

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## Alternatives to Invasives

Species to AVOID\* : **Pinus radiata (Monterey pine)**

MCCP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthingia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hernandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Pinus radiata (Monterey pine)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Pithecellobium dulce (opiuma)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthingia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Pithecellobium dulce (opiuma)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Polygonum capitatum (pink-clover)**

MCPP use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Psidium cattleianum (strawberry guava)**

MCPP use category : street tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
<i>Andira inermis</i>	15	20		spreading	med	med	good	good	mod	No	lilac	SpWi	False	no	False	False	no	(dry)	low-med	low	No			1,(3),4
<i>Bolusanthus speciosus</i> (Rhodesian wisteria)	15	15		round	med	med	med	med	sens	No	blue/violet	SpWi	True	no	False	False	no	dry-med	low-med-high	low	No			2
<i>Callistemon citrinus</i> (bottlebrush)	20	15		upright: round	dense	med	med	good	mod	No	red	SpSuAuWi	False	no	False	False	no	dry-med	low-med-high	low	No			1,2,3,4
<i>Ceratonia siliqua</i>	20	20		upright:	med	med	poor	good	mod	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			1,2,3,4
<i>Cordia sebestena</i> (kou haole)	20	15		upright: round	dense	med	med	good	mod	No	red/orange	SpSuAu	False	yes	False	False	yes	dry-med-wet	low-med	med	No			1,3,4,5
<i>Crescentia cujete</i> (calabash tree)	20	20		round	dense	med	med	med	mod	No			False	yes	False	False	yes	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
<i>Diospyros sandwicensis</i>	12	15		spreading	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			3,4
<i>Eucalyptus platypus</i> (round-leafed moort)	15	10		upright	dense	fast	med	good	mod	No	yellow	SpSu	False	yes	False	False	no	dry-med	low	low	Yes			2,3,4,5
<i>Eucalyptus stoatei</i> (scarlet pear gum)	20	10		upright	open	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	dry-med	low	med	No			1,2,3,4,5
<i>Hertiera littoralis</i>	20	25		spreading	med	med	poor	med	tol	No			False	yes	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Kokia drynarioides</i> (kokio)	20	20		round	open	med	med	med	sens	No	red/orange	SpSuAu	False	no	False	True	yes	dry-med	low-med	low	No			1,2,3,4
<i>Lagerstroemia indica</i> (crape myrtle)	15	10		upright	open	fast	poor	med	mod	No	pink, white	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4,5
<i>Nestegis sandwicensis</i>	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	med	low	No			2,3,4
<i>Posoqueria latifolia</i> (tree jasmine)	15	10		upright: round	dense	fast	good	med	sens	No	white	SpSu	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
<i>Reynoldsia sandwicensis</i> (ohe makai)	20	20		round	med	med	poor	good	sens	No			False	no	False	True	yes	dry	med	low	No			3
<i>Schotia brachypetala</i> (schotia, tree fuchsia)	20	15		upright	med	slow	med	good	mod	No	red	SpSu	False	no	False	False	no	dry-med	low-med	low	No			2,3,4
<i>Thrinax parviflora</i>	20	10		upright	med	med	med	good	mod	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Veitchia merrillii</i> (Manila palm)	20	10		upright	open	slow	med	good	mod	No	white	SpSuAu	False	yes	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4

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## Alternatives to Invasives

Species to AVOID\* : **Pterocarpus indicus (narra)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Pterocarpus indicus (narra)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneale)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kaman)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Swietenia mahagoni (mahogany)	40	25		round	dense	slow	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4

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## Alternatives to Invasives

Species to AVOID\* : **Ptychosperma elegans (solitaire palm)**

MCPP use category : street tree - medium

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Barringtonia asiatica	35	35		upright:	open	med	poor	good	tol	No	white	SpSuAu	False	no	False	False	yes	(dry)	low	med	Yes			1,(3),4,5
Bucida buceras (geometry tree)	30	25		upright: round	med	med	med	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	Yes			1,(3),4
Callistemon viminalis (drooping bottlebrush)	25	20		upright: round	dense	med	med	good	mod	No	red	SpSu	False	no	False	False	no	(dry) med	low-med-high	low	Yes			2,(3),4
Cassia javanica (pink/white shower tree)	30	25		upright: round	med	fast	med	good	mod	Yes	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,(3),4
Colvillea racemosa (colvillea)	25	20		round	open	med	med	good	mod	No	orange	SuAu	False	no	False	False	no	dry-med-wet	low-med	low	No			1,2,3,4,5
Cordia subcordata (kou)	30	25		upright: round	dense	fast	poor	good	tol	No	orange	SpSuAuWi	False	yes	False	False	yes	(dry) med-wet	low	med	Yes			1,(3),4,5
Eucalyptus cinerea (silver dollar eucalyptus)	35	25		upright:	dense	fast	med	good	mod	Yes			False	no	False	True	yes	dry-med	low-med-high	med	Yes			2,3
Eucalyptus gardneri	27	25		upright	dense	fast	med	good	mod	No	yellow	Au	False	yes	False	True	no	dry-med	low	low	Yes			1,2,3,4,5
Eucalyptus torquata (coral gum)	35	30		upright: round	dense	fast	med	good	mod	No	pink/yellow, pink/white	Au	False	yes	False	False	no	dry-med	low	low	Yes			1,2,3,4,5
Ficus lyrata (fiddle leaf fig)	35	35		upright: round	dense	med	med	good	tol	No		SpSuAuWi	False	no	False	False	yes	(dry) med	low-med	med	Yes			1,3,4,5
Metrosideros polymorpha (ohia lehua)	25	25		round	open	slow	med	good	sens	No	red,orange,	SpSuWi	False	no	False	False	no	(dry)	low-med-high	low	Yes			1,2,(3),4
Podocarpus elatus (podocarpus)	25	15		upright	med	med	med	med	sens	No			False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4
Pongamia pinnata	35	25		round	dense	fast	med	good	tol	No	pink/white	SpSu	False	no	False	False	no	(dry)	low	low	Yes			1,(3),5
Pritchardia hillebrandii (loulou palm)	25	15		upright	dense	slow	med	good	tol	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Pritchardia pacifica (Fiji fan palm)	30	15		upright	dense	slow	low	good	tol	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Saraca indica	30	20		upright	med	med	med	med	sens	No	yellow/red		False	no	False	False	no	med-wet	low	low	No			1,4
Tabebuia heterophylla (pink tecoma)	35	25		upright: round	dense	med	med	med	mod	No	pink	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Thespesia populnea (milo, portia tree)	30	25		round	dense	fast	med	good	tol	No	yellow	SpSuAu	False	yes	False	False	yes	(dry) med-wet	low-med	med	Yes			1,(3),5
Veitchia joannis (Joannis palm, Fiji ivory palm)	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia montgomeryan	30	20		upright	open	fast	good	good	sens	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4
Veitchia winin (Winin palm)	30	15		upright	open	fast	good	good	sens	No			False	no	False	False	no	med-wet	low	low	No			1,4

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## Alternatives to Invasives

Species to AVOID\* : **Ptychosperma macarthurii (Macarthur palm)**

MCPD use category : park tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Caesalpinia pulcherrima (dwarf poinciana)	15	15		round	open	fast	poor	good	tol	No	red/yellow	SpSuAuWi	False	no	False	False	no	dry-med-	low-med	low	No			1,3,4,5
Coccoloba uvifera	20	20		round	dense	med	med	good	tol	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			2,3,5
Dracaena draco (dragon tree)	15	20		upright: round	open	slow	med	good	tol	No	yellow	Wi	False	no	False	False	no	dry-med	low	low	No			3,4,5
Erythrina crista-galli (coral tree)	15	10		round	med	med	poor	good	tol	No	red	Sp	False	no	False	True	yes	dry-med	low	low	No			3,4,5
Erythrina sandwicensis	20	20		spreading	med	fast	poor	good	tol	Yes	red	SpSu	False	no	False	True	yes	dry-med	low	med	Yes			2,3,4
Gardenia brighamii (nanu)	15	15		round	dense	med	med	good	sens	No	white	SpSuWi	True	yes	False	False	no	dry-med	med	low	Yes			2,3,4
Gardenia taitensis (tiare, Tahitian gardenia)	20	15		round	med	med	good	med	sens	No	white	SpSuAuWi	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Gliricidia sepium (madre de cacao)	20	20		round	open	fast	poor	good	tol	No	violet	SpWi	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Hibiscadelphus giffardianus (hau kuauiwi)	20	15		upright: round	dense	med	med	med	sens	No	maroon	SpWi	False	yes	False	True	yes	med	med	med	No			2,4
Jatropha integerrima (rose-flowered jatropha)	15	15		round	open	med	poor	good	mod	No	red	SpSuAuWi	False	no	True	False	no	dry-med	low-med	low	No			3,4
Latania loddigesii (blue latan palm)	25	15		upright	dense	slow	med	med	mod	No	white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Michelia figo (banana shrub, ainahau)	15	15		round	dense	med	poor	med	sens	No	yellow/red	SpSuAuWi	True	no	False	False	no	(dry) med	low-med	low	Yes			2,(3),4
Musa acuminata (maia, banana)	6-30	6-30		upright	dense	fast	poor	med	sens	No	white	SpSu	False	yes	False	False	yes	(dry) med-wet	low-med	high	No			1,(3),4
Myrsine lessertiana	15	12		round	dense	slow	med	good	sens	No			False	yes	False	False	no	med-wet	med	med	No			2,4
Nesoluma polynesicum (keahi)	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry	low-med	low	No			3
Pisonia brunoniana (aulu, papala kepau)	15	15		round	med	med	poor	good	sens	No			False	yes	False	False	no	med	med-high	low	No			2,4
Pisonia sandwicensis	15	15		round	med	med	med	med	sens	No			False	yes	False	False	no	med	med	low	No			2,4
Pittosporum hosmeri (hawa)	12	10		round	med	slow	med	med	sens	No	white	SpWi	True	yes	False	False	no	med	med	med	No			2,4
Platycladus orientalis (oriental arborvitae)	15	12		upright: spreading	dense	slow	med	good	sens	No			False	no	False	False	no	(dry) med	low-med-high	low	No			2,(3),4
Pleomele auwahiensis (hala pepe)	20	15		upright: round	med	med	poor	good	sens	No	yellow	Sp	False	yes	False	False	no	dry-med	med	low	No			2,3,4
Plumeria obtusa (Singapore plumeria)	20	15		round	dense	med	med	good	tol	No	white	SpSuAuWi	True	no	True	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
Plumeria rubra	20	15		round	dense	med	med	good	tol	No	red	SpSuAu	True	no	True	True	yes	dry-med	low-med	low	Yes			2,3,4,5
Pritchardia glabrata (loulou)	6	6		round	dense	slow	med	good	sens	No	yellow	SpSuWi	False	yes	False	False	no	(dry) med-wet	med	low	No			2,(3),4
Rauvolfia sandwicensis (hao)	20	15		upright: round	med	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			2,3,4
Sophora chrysophylla	15	15		round	med	slow	poor	good	sens	No	yellow	SpSu	False	yes	False	False	no	med	med-	med	No			2,4
Sophora tomentosa (silver bush)	15	15		round	med	med	poor	good	tol	No	yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Tournefortia argentea (beach heliotrope, tahinu)	25	25		round	dense	med	poor	good	tol	No	white	SpSuAuWi	False	no	False	False	yes	dry-med	low	med	Yes			3,5

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## Alternatives to Invasives

Species to AVOID\* : **Ravenala madagascariensis (traveler's tree)**

MCPD use category : park tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Caesalpinia pulcherrima (dwarf poinciana)	15	15		round	open	fast	poor	good	tol	No	red/yellow	SpSuAuWi	False	no	False	False	no	dry-med-	low-med	low	No			1,3,4,5
Coccoloba uvifera	20	20		round	dense	med	med	good	tol	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			2,3,5
Dracaena draco (dragon tree)	15	20		upright: round	open	slow	med	good	tol	No	yellow	Wi	False	no	False	False	no	dry-med	low	low	No			3,4,5
Erythrina crista-galli (coral tree)	15	10		round	med	med	poor	good	tol	No	red	Sp	False	no	False	True	yes	dry-med	low	low	No			3,4,5
Erythrina sandwicensis	20	20		spreading	med	fast	poor	good	tol	Yes	red	SpSu	False	no	False	True	yes	dry-med	low	med	Yes			2,3,4
Gardenia brighamii (nanu)	15	15		round	dense	med	med	good	sens	No	white	SpSuWi	True	yes	False	False	no	dry-med	med	low	Yes			2,3,4
Gardenia taitensis (tiare, Tahitian gardenia)	20	15		round	med	med	good	med	sens	No	white	SpSuAuWi	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Gliricidia sepium (madre de cacao)	20	20		round	open	fast	poor	good	tol	No	violet	SpWi	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Hibiscadelphus giffardianus (hau kuauiwi)	20	15		upright: round	dense	med	med	med	sens	No	maroon	SpWi	False	yes	False	True	yes	med	med	med	No			2,4
Jatropha integerrima (rose-flowered jatropha)	15	15		round	open	med	poor	good	mod	No	red	SpSuAuWi	False	no	True	False	no	dry-med	low-med	low	No			3,4
Latania loddigesii (blue latan palm)	25	15		upright	dense	slow	med	med	mod	No	white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Michelia figo (banana shrub, ainahau)	15	15		round	dense	med	poor	med	sens	No	yellow/red	SpSuAuWi	True	no	False	False	no	(dry) med	low-med	low	Yes			2,(3),4
Musa acuminata (maia, banana)	6-30	6-30		upright	dense	fast	poor	med	sens	No	white	SpSu	False	yes	False	False	yes	(dry) med-wet	low-med	high	No			1,(3),4
Myrsine lessertiana	15	12		round	dense	slow	med	good	sens	No			False	yes	False	False	no	med-wet	med	med	No			2,4
Nesoluma polynesicum (keahi)	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry	low-med	low	No			3
Pisonia brunoniana (aulu, papala kepau)	15	15		round	med	med	poor	good	sens	No			False	yes	False	False	no	med	med-high	low	No			2,4
Pisonia sandwicensis	15	15		round	med	med	med	med	sens	No			False	yes	False	False	no	med	med	low	No			2,4
Pittosporum hosmeri (hawa)	12	10		round	med	slow	med	med	sens	No	white	SpWi	True	yes	False	False	no	med	med	med	No			2,4
Platycladus orientalis (oriental arborvitae)	15	12		upright: spreading	dense	slow	med	good	sens	No			False	no	False	False	no	(dry) med	low-med-high	low	No			2,(3),4
Pleomele auwahiensis (hala pepe)	20	15		upright: round	med	med	poor	good	sens	No	yellow	Sp	False	yes	False	False	no	dry-med	med	low	No			2,3,4
Plumeria obtusa (Singapore plumeria)	20	15		round	dense	med	med	good	tol	No	white	SpSuAuWi	True	no	True	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
Plumeria rubra	20	15		round	dense	med	med	good	tol	No	red	SpSuAu	True	no	True	True	yes	dry-med	low-med	low	Yes			2,3,4,5
Pritchardia glabrata (loulou)	6	6		round	dense	slow	med	good	sens	No	yellow	SpSuWi	False	yes	False	False	no	(dry) med-wet	med	low	No			2,(3),4
Rauvolfia sandwicensis (hao)	20	15		upright: round	med	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			2,3,4
Sophora chrysophylla	15	15		round	med	slow	poor	good	sens	No	yellow	SpSu	False	yes	False	False	no	med	med-	med	No			2,4
Sophora tomentosa (silver bush)	15	15		round	med	med	poor	good	tol	No	yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Tournefortia argentea (beach heliotrope, tahinu)	25	25		round	dense	med	poor	good	tol	No	white	SpSuAuWi	False	no	False	False	yes	dry-med	low	med	Yes			3,5

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## Alternatives to Invasives

Species to AVOID\* : **Schefflera actinophylla (octopus tree)**

MCCP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seaforthia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Schefflera actinophylla (octopus tree)**

MCPP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Schinus molle (California pepper tree)**

MCPP use category : park tree - medium

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Artocarpus heterophyllu	35	30		upright:	dense	med	good	good	mod	No			False	yes	False	False	yes	(dry)	low	low	Yes			1,(3),4
Artocarpus odoratissimus (marang)	35	20		upright	med	fast	good	med	mod	No			False	yes	False	True	yes	med-wet	low	med	Yes			1,4
Brachychiton acerifolius (Australian flame tree)	35	25		upright: round	open	fast	poor	good	mod	No	red	SuAu	False	no	False	True	yes	med	med	low	Yes			1,2,4
Cochlospermum vitifolium (buttercup tree)	35	25		upright: round	open	fast	poor	med	sens	No	yellow	Wi	False	no	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Lagerstroemia speciosa (giant crape myrtle)	35	25		upright: round	med	med	poor	med	sens	No	lavender	SpSu	False	no	False	True	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Livistona rotundifolia (Sadang palm)	30	10		upright	med	med	good	med	mod	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Michelia champaca (orange champak, mulang)	30	25		upright:	med	med	poor	med	sens	No	yellow/oran	SpSu	True	no	False	False	yes	(dry)	med	low	Yes			1,2,(3),4
Pandanus tectorius (hala, pandanus, screw pine)	35	25		round	dense	med	med	good	tol	No	white	SpSuAuWi	True	no	False	False	yes	(dry)	low	high	No			1,(3),4,5
Pisonia umbellifera (ulu, papala kepau)	25	20		upright: round	med	fast	good	poor	sens	No			False	yes	False	False	no	wet	low	low	Yes			1,4
Schizostachyum glaucifolium (ohe)	30	20		upright	dense	fast	good	med	sens	No			False	no	False	False	yes	wet	low	med	No			1,4
Swietenia mahagoni	40	25		round	dense	slow	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	low	Yes			1,2,(3),4
Theobroma cacao (cacao)	25	20		upright: round	dense	med	good	med	sens	No	yellow	SpSuAuWi	False	yes	False	False	no	med-wet	low	med	Yes			1
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright:	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-	low-med	med	Yes			1,3,4
Swietenia mahagoni (mahogany)	40	25		round	dense	slow	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-	low-med	low	Yes			1,3,4
Tamarindus indica	60	30		upright:	dense	med	med	good	mod	No	yellow/gree	SpSuAuWi	False	yes	False	False	no	dry-med-	low-med	low	Yes			1,3,4

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## Alternatives to Invasives

Species to AVOID\* : **Senna alata (candle bush)**

MCCP use category : park tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Caesalpinia pulcherrima (dwarf poinciana)	15	15		round	open	fast	poor	good	tol	No	red/yellow	SpSuAuWi	False	no	False	False	no	dry-med-	low-med	low	No			1,3,4,5
Coccoloba uvifera	20	20		round	dense	med	med	good	tol	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			2,3,5
Dracaena draco (dragon tree)	15	20		upright: round	open	slow	med	good	tol	No	yellow	Wi	False	no	False	False	no	dry-med	low	low	No			3,4,5
Erythrina crista-galli (coral tree)	15	10		round	med	med	poor	good	tol	No	red	Sp	False	no	False	True	yes	dry-med	low	low	No			3,4,5
Erythrina sandwicensis	20	20		spreading	med	fast	poor	good	tol	Yes	red	SpSu	False	no	False	True	yes	dry-med	low	med	Yes			2,3,4
Gardenia brighamii (nanu)	15	15		round	dense	med	med	good	sens	No	white	SpSuWi	True	yes	False	False	no	dry-med	med	low	Yes			2,3,4
Gardenia taitensis (tiare, Tahitian gardenia)	20	15		round	med	med	good	med	sens	No	white	SpSuAuWi	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Gliricidia sepium (madre de cacao)	20	20		round	open	fast	poor	good	tol	No	violet	SpWi	False	no	False	False	no	dry-med	low-med	low	No			3,4,5
Hibiscadelphus giffardianus (hau kuauiwi)	20	15		upright: round	dense	med	med	med	sens	No	maroon	SpWi	False	yes	False	True	yes	med	med	med	No			2,4
Jatropha integerrima (rose-flowered jatropha)	15	15		round	open	med	poor	good	mod	No	red	SpSuAuWi	False	no	True	False	no	dry-med	low-med	low	No			3,4
Latania loddigesii (blue latan palm)	25	15		upright	dense	slow	med	med	mod	No	white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Michelia figo (banana shrub, ainahau)	15	15		round	dense	med	poor	med	sens	No	yellow/red	SpSuAuWi	True	no	False	False	no	(dry) med	low-med	low	Yes			2,(3),4
Musa acuminata (maia, banana)	6-30	6-30		upright	dense	fast	poor	med	sens	No	white	SpSu	False	yes	False	False	yes	(dry) med-wet	low-med	high	No			1,(3),4
Myrsine lessertiana	15	12		round	dense	slow	med	good	sens	No			False	yes	False	False	no	med-wet	med	med	No			2,4
Nesoluma polynesicum (keahi)	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry	low-med	low	No			3
Pisonia brunoniana (aulu, papala kepau)	15	15		round	med	med	poor	good	sens	No			False	yes	False	False	no	med	med-high	low	No			2,4
Pisonia sandwicensis	15	15		round	med	med	med	med	sens	No			False	yes	False	False	no	med	med	low	No			2,4
Pittosporum hosmeri (hawa)	12	10		round	med	slow	med	med	sens	No	white	SpWi	True	yes	False	False	no	med	med	med	No			2,4
Platycladus orientalis (oriental arborvitae)	15	12		upright: spreading	dense	slow	med	good	sens	No			False	no	False	False	no	(dry) med	low-med-high	low	No			2,(3),4
Pleomele auwahiensis (hala pepe)	20	15		upright: round	med	med	poor	good	sens	No	yellow	Sp	False	yes	False	False	no	dry-med	med	low	No			2,3,4
Plumeria obtusa (Singapore plumeria)	20	15		round	dense	med	med	good	tol	No	white	SpSuAuWi	True	no	True	False	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
Plumeria rubra	20	15		round	dense	med	med	good	tol	No	red	SpSuAu	True	no	True	True	yes	dry-med	low-med	low	Yes			2,3,4,5
Pritchardia glabrata (loulou)	6	6		round	dense	slow	med	good	sens	No	yellow	SpSuWi	False	yes	False	False	no	(dry) med-wet	med	low	No			2,(3),4
Rauvolfia sandwicensis (hao)	20	15		upright: round	med	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			2,3,4
Sophora chrysophylla	15	15		round	med	slow	poor	good	sens	No	yellow	SpSu	False	yes	False	False	no	med	med-	med	No			2,4
Sophora tomentosa (silver bush)	15	15		round	med	med	poor	good	tol	No	yellow	SpSuWi	False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4,5
Tournefortia argentea (beach heliotrope, tahinu)	25	25		round	dense	med	poor	good	tol	No	white	SpSuAuWi	False	no	False	False	yes	dry-med	low	med	Yes			3,5

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## Alternatives to Invasives

Species to AVOID\* : **Senna surattensis (kolomona)**

MCPP use category : street tree - small

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
<i>Andira inermis</i>	15	20		spreading	med	med	good	good	mod	No	lilac	SpWi	False	no	False	False	no	(dry)	low-med	low	No			1,(3),4
<i>Bolusanthus speciosus</i> (Rhodesian wisteria)	15	15		round	med	med	med	med	sens	No	blue/violet	SpWi	True	no	False	False	no	dry-med	low-med-high	low	No			2
<i>Callistemon citrinus</i> (bottlebrush)	20	15		upright: round	dense	med	med	good	mod	No	red	SpSuAuWi	False	no	False	False	no	dry-med	low-med-high	low	No			1,2,3,4
<i>Ceratonia siliqua</i>	20	20		upright:	med	med	poor	good	mod	No			False	yes	False	False	yes	dry-med	low-med	low	Yes			1,2,3,4
<i>Cordia sebestena</i> (kou haole)	20	15		upright: round	dense	med	med	good	mod	No	red/orange	SpSuAu	False	yes	False	False	yes	dry-med-wet	low-med	med	No			1,3,4,5
<i>Crescentia cujete</i> (calabash tree)	20	20		round	dense	med	med	med	mod	No			False	yes	False	False	yes	(dry) med-wet	low-med	low	Yes			1,2,(3),4,5
<i>Diospyros sandwicensis</i>	12	15		spreading	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	low-med	low	No			3,4
<i>Eucalyptus platypus</i> (round-leaved moort)	15	10		upright	dense	fast	med	good	mod	No	yellow	SpSu	False	yes	False	False	no	dry-med	low	low	Yes			2,3,4,5
<i>Eucalyptus stoatei</i> (scarlet pear gum)	20	10		upright	open	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	dry-med	low	med	No			1,2,3,4,5
<i>Heritiera littoralis</i>	20	25		spreading	med	med	poor	med	tol	No			False	yes	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Kokia drynarioides</i> (kokio)	20	20		round	open	med	med	med	sens	No	red/orange	SpSuAu	False	no	False	True	yes	dry-med	low-med	low	No			1,2,3,4
<i>Lagerstroemia indica</i> (rape myrtle)	15	10		upright	open	fast	poor	med	mod	No	pink, white	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4,5
<i>Nestegis sandwicensis</i>	15	15		round	dense	slow	poor	good	sens	No			False	yes	False	False	no	dry-med	med	low	No			2,3,4
<i>Posoqueria latifolia</i> (tree jasmine)	15	10		upright: round	dense	fast	good	med	sens	No	white	SpSu	True	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
<i>Reynoldsia sandwicensis</i> (ohe makai)	20	20		round	med	med	poor	good	sens	No			False	no	False	True	yes	dry	med	low	No			3
<i>Schotia brachypetala</i> (schotia, tree fuchsia)	20	15		upright	med	slow	med	good	mod	No	red	SpSu	False	no	False	False	no	dry-med	low-med	low	No			2,3,4
<i>Thrinax parviflora</i>	20	10		upright	med	med	med	good	mod	No			False	no	False	False	no	(dry)	low	low	No			1,(3),4,5
<i>Veitchia merrillii</i> (Manila palm)	20	10		upright	open	slow	med	good	mod	No	white	SpSuAu	False	yes	False	False	no	(dry) med-wet	low-med	low	No			1,2,(3),4

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## Alternatives to Invasives

Species to AVOID\* : **Spathodea campanulata (African tulip tree)**

MCP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Acacia koa	60	80		round	open	fast	poor	med	sens	Yes		SpWi	False	no	False	False	yes	med-wet	med-	med	Yes			1,2,4
Allocasuarina verticillata (ironwood (long leaf))	60	30		upright	med	fast	med	good	tol	No	pink	SpSuAuWi	False	no	False	False	yes	med	med	low	Yes			2
Araucaria columnaris (Cook pine)	80	20		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry) med-wet	low-med	med	No			1,2,(3),4,5
Araucaria heterophylla	80	40		upright	dense	fast	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	med	No			1,2,(3),4,5
Archontophoenix cunninghamiana (Seafarthingia palm)	60	15		upright	med	fast	med	good	sens	No			False	no	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Artocarpus altilis (ulu, breadfruit)	50	40		upright: round	med	med	med	poor	mod	No			False	yes	False	True	yes	(dry) med-wet	low	med	Yes			1,(3),4
Cassia bakeriana (cassia)	45	30		upright: round	med	fast	med	med	mod	No	pink/white	SpSu	False	yes	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Cassia fistula	40	25		spreading	open	fast	poor	med	sens	Yes	yellow	SuAu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4
Cassia grandis (pink shower tree, coral shower tree)	50	30		upright: round	open	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,3,4
Catalpa longissima (yokewood, carrotwood)	40	25		upright	dense	med	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry)	low-med	low	Yes			(3),4
Cinnamomum aromaticum (cassia bark tree)	40	35		round	dense	fast	good	good	sens	Yes			False	no	False	False	no	med-wet	low-med	low	Yes			1,4
Delonix regia (royal poinciana)	40	40		spreading	med	fast	poor	good	sens	Yes	red, orange	SpSu	False	yes	False	True	yes	dry-med-wet	low-med	med	Yes			1,2,3,4
Enterolobium cyclocarpum (earpod tree)	80	80		upright:	open	fast	med	good	mod	Yes			False	yes	False	True	yes	dry-med	low-med	med	Yes			3,4
Eucalyptus deglupta (rainbow eucalyptus, mindanao gum)	60	30		upright	open	fast	med	med	mod	No	white	SpWi	False	no	False	False	no	med-wet	low	low	Yes			1,3,4
Eucalyptus salubris (gimlet)	60	40		upright: spreading	dense	fast	med	good	tol	No	yellow	SpSu	False	no	False	True	no	dry-med	low	low	Yes			2,3,4,5
Eucalyptus tereticornis	80	40		upright	med	fast	med	good	sens	Yes			False	no	False	True	yes	dry-med	med-	med	Yes			2,4
Ficus benghalensis (Indian banyan)	60	60		upright: round	dense	med	poor	good	tol	No	red	Au	False	yes	False	False	yes	dry-med-wet	low	med	Yes			1,3,4,5
Ficus elastica (Indian rubber tree)	60	60		round	dense	fast	med	good	tol	Yes			False	no	False	True	yes	dry-med-wet	low-med	high	Yes			1,2,3,4,5
Ficus religiosa	50	50		upright:	med	med	poor	good	tol	No	white	SuAu	False	no	False	False	no	dry-med-	low-med	low	Yes			1,3,4,5
Hemandia sonora (lantern tree)	40	25		upright: round	dense	med	med	good	tol	No	white	SpSuAuWi	False	yes	False	False	yes	med-wet	low	med	Yes			5
Jacaranda mimosifolia (jacaranda)	40	40		upright: spreading	med	fast	poor	med	sens	Yes	blue	SpSu	False	no	False	True	yes	med-wet	low-med	med	Yes			1,2,4
Magnolia grandiflora	40	35		upright:	dense	med	med	med	sens	No	white	SpSuAu	True	no	False	False	yes	med-wet	low-med-high	med	Yes			1,2,4
Metroxylon amicarum	100	35		upright	med	fast	good	med	mod	No			False	yes	False	False	no	med-wet	low	low	No			1
Pachira aquatica (Malabar chestnut)	40	25		upright: round	med	med	med	med	sens	No	green	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low-med-high	med	Yes			1,2,(3),4
Pritchardia arecina	40	10		upright	dense	med	med	good	sens	No			False	yes	False	False	no	(dry)	med	low	No			1,(3),4
Pseudobombax ellipticum (bombax)	40	35		upright: round	med	med	poor	med	mod	No	white/pink	SpWi	False	no	False	True	yes	dry-med	low	med	Yes			1,3,4
Roystonea regia (royal palm)	50	20		upright	open	fast	poor	good	mod	No			False	yes	False	False	yes	med-wet	low-med	med	Yes			1,2,(3),4,5

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## Alternatives to Invasives

Species to AVOID\* : **Spathodea campanulata (African tulip tree)**

MCCP use category : park tree - large

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maintenance	Provides shade	Foliage color	Propagation	Planting zone(s)
Samanea saman	80	150		spreading	dense	fast	poor	med	sens	Yes	pink	SpSu	False	yes	False	True	yes	(dry)	low-med	med	Yes			1,(3),4,5
Sapindus saponaria (maneie)	60	60		round	open	fast	med	med	sens	No			False	no	False	False	no	med	med-high	low	No			2
Senna siamea (pheasant wood, kassod tree)	60	40		upright: round	med	fast	med	good	mod	No	yellow	SuAu	False	yes	False	True	yes	(dry) med	low-med	med	Yes			1,(3),4
Tabebuia donnell-smithii (gold tree, prima vera)	100	30		upright	med	med	poor	poor	sens	Yes	yellow	SpSu	False	no	False	True	yes	dry-med-wet	low-med	low	Yes			1,3,4
Tamarindus indica (tamarind)	60	30		upright: round	dense	med	med	good	mod	No	yellow/green	SpSuAuWi	False	yes	False	False	no	dry-med-wet	low-med	low	Yes			1,3,4
Terminalia catappa (false kamanii)	75	75		spreading	med	med	poor	good	tol	Yes	white	Au	False	no	False	False	yes	dry-med-wet	low	high	Yes			1,3,4,5
Tipuana tipu	40	25		spreading	open	med	poor	good	tol	No	yellow	SpSu	False	no	False	False	no	dry-med	low-med	low	No			3,4,5

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## Alternatives to Invasives

Species to AVOID\* : **Sphagneticola trilobata (wedelia)**

MCPD use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Syngonium podophyllum (green gold)**

MCPD use category : ground cover

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Catharanthus roseus (Madagascar periwinkle)	1-2	15"	1.5'-2'	upright	med	fast	med	good	mod	No	rose, white	SpSuAuWi	False	no	False	False	no	(dry)	low-med-high	low	No	dark	seed	1,2,(3),4,5
Ficus tikoua	0.5-1	1	8"	spreading	med	fast	med	good	sens	No			False	no	False	False	no	(dry)	low-med	low	No	dark	cuttings	(3),4
Hemigraphis alternata (metallic plant)	0.5'	1.5'	1'	spreading	dense	fast	med	good	mod	No	white	SpSu	False	no	False	False	no	(dry) med-wet	low-med-high	low	No	maroon	cuttings	1,2,(3),4,5
Hibiscus calyphyllus	3	2	1.5	spreading	med	med	poor	good	mod	No	yellow/red	SpSuAuWi	False	no	False	False	no	(dry)	low-med	low	No	green	cuttings	2,(3),4,5
Hippeastrum puniceum (amaryllis)	2	1	1	upright	med	fast	med	good	sens	No	orange	SpSuAu	False	no	False	False	no	dry-med-wet	low-med	low	No	green	division	1,3,4
Jasminum multiflorum (star jasmine)	1-1.5	2	1.5	spreading	dense	fast	med	good	tol	No	white	SpSu	True	no	False	False	no	(dry) med	low-med	low	No	green	cuttings	2,(3),4,5
Ophiopogon japonicus	8"-12"	8"	0.5	upright	dense	slow	good	good	mod	No			False	no	False	False	no	(dry)	low-med	low	No	dark	division	1,2,(3),4,5
Osteospermum fruticosum (trailing African daisy)	1.5	1.5	1.5	spreading	dense	fast	poor	good	tol	No	white, lavender	SuAu	False	no	False	False	no	(dry) med-wet	low-med	low	No	light green	cuttings	1,2,(3),4,5
Pelargonium peltatum (ivy-leaf geranium)	1	1.5	1	spreading	med	med	poor	good	mod	No	pink, red, lavender	SpSuAuWi	False	no	False	False	no	med	low-med	low	No	green	cuttings	1,2,4
Peperomia obtusifolia (baby rubber plant)	1	1	1	upright	med	med	good	med	sens	No	white	Su	False	no	False	False	no	(dry) med	low-med-high	low	No	dark green	cuttings	2,(3),4
Potentilla verna (spring cinquefoil)	3"-6"	1.5	1	spreading	med	fast	med	med	sens	No	yellow	SpSu	False	no	False	False	no	(dry) med-wet	low-med	low	No	green	division, cuttings	1,(3),4
Ruellia caroliniensis (ruellia)	1.5	2	1.5	upright: spreading	dense	fast	med	good	mod	No	blue/white	SpSuAuWi	False	no	False	False	no	(dry) med-wet	low	low	No	light green	cuttings	1,(3),4,5
Saxifraga sarmentosa	1	1.5	1	spreading	med	fast	poor	good	sens	No	white	Wi	False	no	False	False	no	med-wet	low-med	low	No	green	runners	1,2,4

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## Alternatives to Invasives

Species to AVOID\* : **Tamarix gallica (tamarisk)**

MCPP use category : park tree - medium

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Artocarpus heterophyllu	35	30		upright:	dense	med	good	good	mod	No			False	yes	False	False	yes	(dry)	low	low	Yes			1,(3),4
Artocarpus odoratissimus (marang)	35	20		upright	med	fast	good	med	mod	No			False	yes	False	True	yes	med-wet	low	med	Yes			1,4
Brachychiton acerifolius (Australian flame tree)	35	25		upright: round	open	fast	poor	good	mod	No	red	SuAu	False	no	False	True	yes	med	med	low	Yes			1,2,4
Cochlospermum vitifolium (buttercup tree)	35	25		upright: round	open	fast	poor	med	sens	No	yellow	Wi	False	no	False	True	yes	(dry) med-wet	low-med	med	Yes			1,2,(3),4
Lagerstroemia speciosa (giant crape myrtle)	35	25		upright: round	med	med	poor	med	sens	No	lavender	SpSu	False	no	False	True	no	(dry) med-wet	low-med	low	Yes			1,2,(3),4
Livistona rotundifolia (Sadanag palm)	30	10		upright	med	med	good	med	mod	No			False	yes	False	False	no	(dry) med-wet	low	low	No			1,(3),4
Michelia champaca (orange champak, mulang)	30	25		upright:	med	med	poor	med	sens	No	yellow/oran	SpSu	True	no	False	False	yes	(dry)	med	low	Yes			1,2,(3),4
Pandanus tectorius (hala, pandanus, screw pine)	35	25		round	dense	med	med	good	tol	No	white	SpSuAuWi	True	no	False	False	yes	(dry)	low	high	No			1,(3),4,5
Pisonia umbellifera (ulu, papala kepau)	25	20		upright: round	med	fast	good	poor	sens	No			False	yes	False	False	no	wet	low	low	Yes			1,4
Schizostachyum glaucifolium (ohe)	30	20		upright	dense	fast	good	med	sens	No			False	no	False	False	yes	wet	low	med	No			1,4
Swietenia mahagoni	40	25		round	dense	slow	poor	good	tol	No			False	no	False	False	no	(dry)	low-med	low	Yes			1,2,(3),4
Theobroma cacao (cacao)	25	20		upright: round	dense	med	good	med	sens	No	yellow	SpSuAuWi	False	yes	False	False	no	med-wet	low	med	Yes			1

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## Alternatives to Invasives

Species to AVOID\* : **Thevetia peruviana (be still tree)**

MCPP use category : sound/wind/visual barrier

### NON-INVASIVE ALTERNATIVES:

Species	Mature height (ft)	Mature spread (ft)	Spacing (ft)	Growth habit	Crown density	Growth rate	Shade tolerance	Wind tolerance	Salt tolerance	Intrusive roots	Flower color	Time of flowers	Fragrant flowers	Fruit or nuts	Poisonous	Deciduous	Rubbish	Water requirements	Elev.	Maint-enance	Provides shade	Foliage color	Propagation	Planting zone(s)
Hibiscus tiliaceus	25	35		spreading	dense	fast	med	good	tol	Yes	yellow	SpSuWi	False	no	False	True	high	(dry)	low	high	Yes			2,(3),5
Scaevola sericea (naupaka kahakai, beach naupaka)	6	8		? was 4	dense	fast	poor	good	tol	No	white	SpSuWi	False	yes	False	False	no	dry-med	low	low	No			3,4,5

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