



Kangaroo Island Council

Weed Spraying Guide

Road Reserves, Cemeteries and Camp Grounds



Contents

WHS General Information.....	5
Weed list	6
Sprays To Be Used.....	7
Resources.....	7
Weed Spraying Schedules.....	8
Township Schedule	8
Weed Spraying Resources.....	9
Townships (within 50km/hour zone)	9
Outside townships (outside 50km/hour zone)	9
Weed Spraying Requirements	10
Township, kerb and gutter, no footpath (grass area).....	10
Townships, kerb and gutter, concrete footpath.....	11
Townships, kerb and gutter, gravel or dirt footpath	12
Townships, no kerb and gutter, no footpath.....	13
Townships, Side Entry Pits	14
Outside Townships, Open Verge.....	15
Within or Outside Townships, Cross Drains.....	16
Within or Outside Townships, Large Drains.....	17
Townships, Walking Trail	18
Campgrounds.....	19
Cemeteries	20

Kangaroo Island Council Weed Spraying Guide

Maps	21
Penneshaw (full township)	21
Penneshaw (Area 1)	22
Penneshaw (Area 2)	23
Kingscote (Full Township)	24
Kingscote (Area 1)	25
Kingscote (Area 2)	26
Kingscote (Area 3)	27
American River (Full Township)	28
American River (Area 1)	29
American River (Area 2)	30
Parndana (Full Township)	31
Emu Bay (Full Township)	32
Brownlow (Full Township)	33
Baudin Beach (Full Township)	34
Penneshaw (Cemetery)	35
Kingscote (Cemetery)	36
Penneshaw (Hog Bay Road)	37
Penneshaw (Cape Willoughby Road)	38
Kingscote (Cordes Rd, Governor Wallen Drive, Seaview Road)	39
Kingscote (Walking Trail)	40
Brownlow (Tiggemann's Corner to Burden Drive to Playford Highway)	41
American River (Cemetery)	42

Kangaroo Island Council Weed Spraying Guide

Vivonne Bay (Campground)	43
Western River (Campground)	44
Dover Farm	45
Duck Lagoon Campground.....	46

WHS General Information

When using any hazardous chemicals the user must consult the Safety Data Sheet for the product and use the product to the manufacturer's specifications. Prior to using any chemical ensure you understand the Personal Protective Equipment, First Aid, Emergency and Spill Response requirements.

Hazardous chemicals are substances, mixtures and articles that can pose a significant risk to health and safety if not managed correctly. They may have health hazards, physical hazards or both.

Personnel who use a Schedule 7 chemical must hold a Chemical Accreditation; e.g. ChemCert AQF3.

Personnel should consult with and review any relevant Australian Standards, Codes of Practice and the Workplace Health and Safety Regulation and KIC Work Procedures prior to handling, using, spraying any chemical product. (E.g. Workplace Health and Safety Regulation 2012, Code of Practice for Summer Weed Control Guide, KIC 1.6.11 Hazardous Chemicals Procedure, etc.)

When using any spray chemical consideration needs to be given to various factors including: specific /legal regulated requirements for the use of such product, location of works, weather conditions, and type of equipment to be used, spray timing, monitoring and record keeping.

Please refer to the below relevant information:

- ChemAlert Website: <https://chemalert.rmt.com.au/lga/index.jsf?policyBuld=56>
- ChemCert: <https://www.chemcert.com.au>
- KIC Policies and Procedures: G:\WHS\WHS Policies & Procedures\Hazardous Chemical Procedure
- KIC Hazard Management Procedure: G:\WHS\WHS Policies & Procedures\Hazard Management Procedure



Weed list

Common Name	Botanical Name
African Feathergrass	<i>Cenchrus macrourus</i>
Fountain Grass	<i>Cenchrus setaceus</i>
Wild Oats	<i>Avena spp</i>
Annual Veldt Grass	<i>Ehrharta longiflora</i>
Perrenial Ryegrass	<i>Lolium perenne</i>
Onion grass	<i>Romulea spp</i>
Cape Tulip	<i>Moraea spp</i>
Caltrop	<i>Tribulus terrestris</i>
Gazania	<i>Gazania sp</i>
Horehound	<i>Marrubium vulgare</i>
Lincoln weed	<i>Diplotaxis tenuifolia</i>
Nutgrass	<i>Cyperus rotundus</i>
Salvation Jane	<i>Echium plantagineum</i>
Silverleaf night-shade	<i>Solanum elaeagnifolium</i>
Apple of Sodum	<i>Solanum linnaeanum</i>
Skeleton Weed	<i>Chondrilla juncea</i>
Variegated Thistle	<i>Silybum marianum</i>
Wild Artichoke	<i>Cynara cardunculus</i>
Heliotrope	<i>Heliotropium spp</i>
Mallow	<i>Malva verticillata</i>

Black nightshade	<i>Solanum nigrum</i>
Bulbil Watsonia	<i>Watsonia meriana</i>
Sow Thistle	<i>Sonchus oleraceus</i>
Prickly Lettuce	<i>Lactuca serriola</i>
Flea Bane	<i>Conyza bonariensis</i>
Onion Weed	<i>Asphodelus fistulosus</i>
Spurges	<i>Euphorbia spp</i>
Stinging Nettles	<i>Urtica urens</i>
Soursob	<i>Oxalis spp</i>
Three Corner Jack	<i>Emex australis</i>
Wire Weed	<i>Polygonum heterophyllum</i>
Mustard Wewed	<i>Sisymbrium officinale</i>
Rhodes Grass	<i>Chloris gayana</i>
Fumitory	<i>Fumaria spp</i>
Plantain	<i>Plantago spp</i>
Fat Hen	<i>Chenopodium spp</i>
Dandelion	<i>Taraxacum spp</i>
Scotch Thistles	<i>Onopordum spp</i>
Wild Poppy	<i>Papaver spp</i>
Bidgee Widgee	<i>Acaena spp</i>
Clovers	<i>Trifolium spp</i>



Sprays To Be Used

- Roundup Ultra Max : Glyphosate 570 (or equivalent)
- Roundup Biactive (or equivalent) – use in waterways and wet areas
- Hammer 400 E C (or equivalent)
- Kamba M (or equivalent)

Resources

- Townships – vehicle (spray unit vehicle) and 2 FTEs
- Rural - – vehicle (spray unit vehicle) and 2 FTEs – note larger unit than in townships



Weed Spraying Schedules

Township Schedule

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Late Summer spray		Autumn Spray		Winter spray		First Spring spray		Second Spring spray		Early Summer spray

Spray details:

Spray Name	Approximate Timing	Exact Timing
Late Summer Spray	early February – late Feb (maybe March)	Based on first germination
Autumn Spray	April	Based on average of 6 weeks later but depends on growth
Winter spray	June/July	Based on average of 6 weeks later but depends on growth
First Spring Spray	Late August/Early September	Based on average of 6 weeks later but depends on growth
Second Spring Spray	October	Based on average of 6 weeks later but depends on growth
Early Summer Spray	early December	Needs to occur early December irrespective of size of weeds. Occurs prior to the tourist season and aims to hold off on need for spraying until February so no spraying occurs during the tourist season.

Factors to consider in determining the exact timing of sprays:

- The exact timing of all sprays depend on the season and weed growth.
- All sprays are weather dependent. If very windy or raining, hold off on spraying.
- Wait at least 4 weeks between sprays (and a maximum of 8 weeks) – except for the Summer period when spraying is not needed
- Depending on rainfall, it may be necessary to include a potential 2 additional sprays during the year. (ie if high rainfall, weeds will grow quicker and additional spraying may be needed).

Weed Spraying Resources

Townships (within 50km/hour zone)

Area	Details	Time estimate ¹	Priority
Penneshaw	Paths and roads, including carpark above Sealink terminal	2 days	High
Kingscote	Paths and roads	3 days	High
American River	Paths and roads in township including campground and walking trail	1.5 days	Medium
Parndana	Paths and roads, including unformed lanes	1 day	Medium
Emu Bay	Paths and roads, including campground and walking trail from playground to jetty (plus Duck Lagoon see below)	1 day	Medium
Brownlow	Paths and roads (plus Tiggemanns Corner and Berden Drive – see below)	1 day	Low
Baudin Beach	Few road edges	0.5 days	Low

Outside townships (outside 50km/hour zone)

Area	Details	Time estimate ¹	Priority
Penneshaw	Cemetery and boundary	1 day	High
Kingscote	Cemetery	1 day	High
Penneshaw	Hog Bay Road – drains on both sides of road from 50 km/hr sign to top of the hill, including Jacks Creek drain (right by 50km/hr signs)	1 day	Medium
Penneshaw	Cape Willoughby Road, drain and open verge from Hog Bay Road to Charing Cross Road	0.5 day	Medium
Kingscote	Cordes Road, Governor Wallen Drive & Seaview Road, including old cemetery, Reeves Point	1 – 1.5 days	Medium
Kingscote	Walking trail – both sides of the trail	1 day	Medium
Brownlow	Tiggemanns Cnr to Berden Drive to Playford Highway intersection– open road verges	Included with Brownlow	Medium
American River	Cemetery	0.25 days	Medium
Vivonne Bay	Campground	0.5 days	Medium
Western River	Campground	0.5 days	Medium
Dover Farm	Road verge, Summervista Boulevard, Shoal Bay Ridge (Summervista to Glen Barrett) – open verge and drains	0.5 days	Low
Duck Lagoon	Campground entry and camp area excluding turfed area	Included with Emu Bay	Low

¹ Weather dependent!

Weed Spraying Requirements

Township, kerb and gutter, no footpath (grass area)

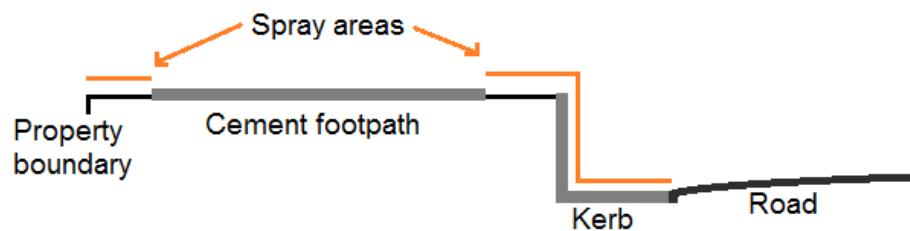


- Spray kerb and gutter and if needed, edge of grass

<u>Kerbs & Paths - Op Exp</u>	<u>District</u>
63117 - Kingscote Kerbs & Paths Mtce Exp	A
63119 - Penneshaw Kerbs & Paths Mtce Exp	B
63120 - Parndana Kerbs & Paths Mtce Exp	C
63123 - American River Kerbs & Paths Mtce Exp	F
63126 - Emu Bay Kerbs & Paths Mtce Exp	I

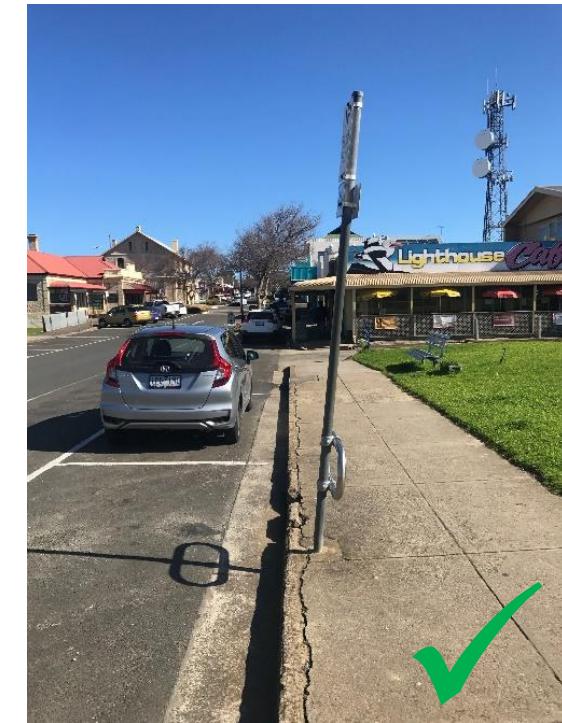


Townships, kerb and gutter, concrete footpath



- Spray kerb and gutter and both sides of cement footpath

<u>Kerbs & Paths - Op Exp</u>	<u>District</u>
63117 - Kingscote Kerbs & Paths Mtce Exp	A
63119 - Penneshaw Kerbs & Paths Mtce Exp	B
63120 - Parndana Kerbs & Paths Mtce Exp	C
63123 - American River Kerbs & Paths Mtce Exp	F
63126 - Emu Bay Kerbs & Paths Mtce Exp	I



Townships, kerb and gutter, gravel or dirt footpath

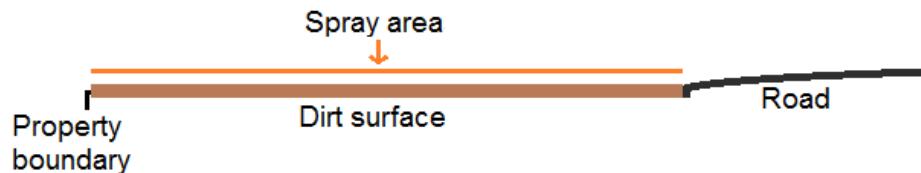


- Spray kerb and gutter and entire width of gravel or dirt

Kerbs & Paths - Op Exp	District
63117 - Kingscote Kerbs & Paths Mtce Exp	A
63119 - Penneshaw Kerbs & Paths Mtce Exp	B
63120 - Parndana Kerbs & Paths Mtce Exp	C
63123 - American River Kerbs & Paths Mtce Exp	F
63126 - Emu Bay Kerbs & Paths Mtce Exp	I



Townships, no kerb and gutter, no footpath

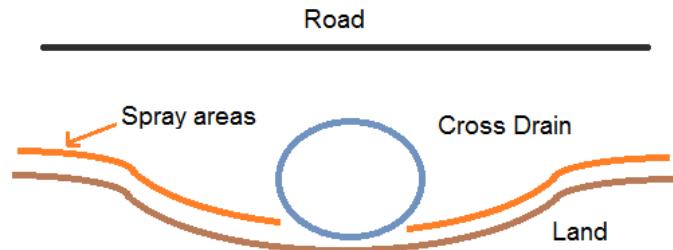


- Spray from road edge to property boundary

<u>Verge / Mowing & Slashing - Op Exp</u>	<u>District</u>
62900 - Western District Verge Mtce	1
62901 - Stokes District Verge Mtce	2
62902 - Newland District Verge Mtce	3
62903 - Wisanger Verge Mtce	4
62904 - MacGillivray Verge Mtce	5
62905 - Redbanks District Verge Mtce	6
62906 - Dudley Verge Mtce	7
62907 - Kingscote Verge Mtce	A
62908 - Brownlow Verge Mtce	A
62909 - Penneshaw Verge Mtce	B
62910 - Parndana Verge Mtce	C
62911 - Vivonne Bay Verge Mtce	D
62912 - Nepean Bay Verge Mtce	E
62913 - American River Verge Mtce	F
62914 - Island Beach Verge Mtce	G
62915 - Baudin Beach (incl American Beach) Verge Mtce	H
62916 - Emu Bay Verge Mtce	I



Townships, Side Entry Pits



- Keep entry and exit point clear and free of weeds
- Approx 0.5m on either side of drain leading into side entry pit

<u>Drainage - Op Exp</u>	<u>Dis</u>
51099 - Western District Stormwater Drainage Infrastructure Mtce	
51100 - Stokes Stormwater Drainage Mtce & Op Exp	
51101 - Newland Stormwater Drainage Mtce & Op Exp	
51102 - Wisanger Stormwater Drainage Mtce & Op Exp	
51103 - MacGillivray Stormwater Drainage Mtce & Op Exp	
51104 - Redbanks Stormwater Drainage Mtce & Op Exp	
51105 - Dudley Stormwater Drainage Infrastructure Mtce	
51106 - Kingscote Stormwater Drainage Infrastructure Mtce	
51107 - Brownlow Stormwater Drainage Infrastructure Mtce	
51108 - Penneshaw Stormwater Drainage Infrastructure Mtce	
51109 - Parndana Stormwater Drainage Infrastructure Mtce	
51110 - Vivonne Bay Stormwater Drainage Infrastructure Mtce	
51111 - Nepean Bay Stormwater Drainage Infrastructure Mtce	
51112 - American River Stormwater Drainage Infrastructure Mtce	
51113 - Island Beach Stormwater Drainage Infrastructure Mtce	
51114 - Baudin Beach Stormwater Drainage Infrastructure Mtce	
51115 - Emu Bay Stormwater Drainage Infrastructure Mtce	



Outside Townships, Open Verge

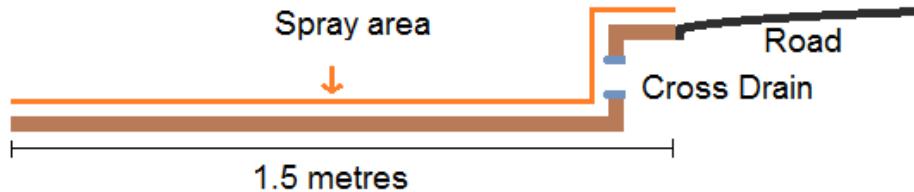


- Spray from road edge to approximately 500mm past the white post.
- Average total width is 1.5 metres

<u>Verge / Mowing & Slashing - Op Exp</u>	<u>District</u>
62900 - Western District Verge Mtce	1
62901 - Stokes District Verge Mtce	2
62902 - Newland District Verge Mtce	3
62903 - Wisanger Verge Mtce	4
62904 - MacGillivray Verge Mtce	5
62905 - Redbanks District Verge Mtce	6
62906 - Dudley Verge Mtce	7
62907 - Kingscote Verge Mtce	A
62908 - Brownlow Verge Mtce	A
62909 - Penneshaw Verge Mtce	B
62910 - Parndana Verge Mtce	C
62911 - Vivonne Bay Verge Mtce	D
62912 - Nepean Bay Verge Mtce	E
62913 - American River Verge Mtce	F
62914 - Island Beach Verge Mtce	G
62915 - Baudin Beach (incl American Beach) Verge Mtce	H
62916 - Emu Bay Verge Mtce	I



Within or Outside Townships, Cross Drains



- Spraying standard 1.5 metres from road as per open verges should cover most cross drains.
- However need to check as working to determine if this is not sufficient and cross drains may require additional spraying.



<u>Drainage - Op Exp</u>	<u>District</u>
51099 - Western District Stormwater Drainage Infrastructure Mtce	1
51100 - Stokes Stormwater Drainage Mtce & Op Exp	2
51101 - Newland Stormwater Drainage Mtce & Op Exp	3
51102 - Wisanger Stormwater Drainage Mtce & Op Exp	4
51103 - MacGillivray Stormwater Drainage Mtce & Op Exp	5
51104 - Redbanks Stormwater Drainage Mtce & Op Exp	6
51105 - Dudley Stormwater Drainage Infrastructure Mtce	7
51106 - Kingscote Stormwater Drainage Infrastructure Mtce	A
51107 - Brownlow Stormwater Drainage Infrastructure Mtce	A
51108 - Penneshaw Stormwater Drainage Infrastructure Mtce	B
51109 - Parndana Stormwater Drainage Infrastructure Mtce	C
51110 - Vivonne Bay Stormwater Drainage Infrastructure Mtce	D
51111 - Nepean Bay Stormwater Drainage Infrastructure Mtce	E
51112 - American River Stormwater Drainage Infrastructure Mtce	F
51113 - Island Beach Stormwater Drainage Infrastructure Mtce	G
51114 - Baudin Beach Stormwater Drainage Infrastructure Mtce	H
51115 - Emu Bay Stormwater Drainage Infrastructure Mtce	I

Within or Outside Townships, Large Drains

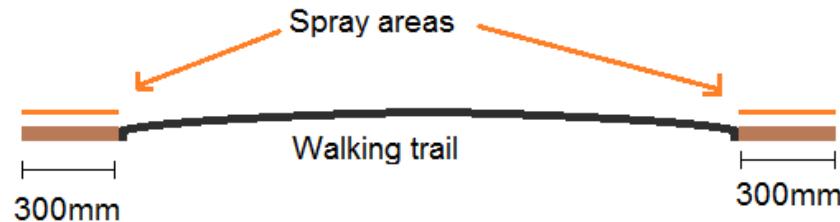


- Large drains (ie 2 near Frenchman's Rock in Penneshaw) will require individual assessment
- Each will need to be inspected to determine if the area can be mowed or whipper snipped.
- If not, an area of approximately 2m x 3m will need to be sprayed around the drain

<u>Drainage - Op Exp</u>	<u>District</u>
51099 - Western District Stormwater Drainage Infrastructure Mtce	1
51100 - Stokes Stormwater Drainage Mtce & Op Exp	2
51101 - Newland Stormwater Drainage Mtce & Op Exp	3
51102 - Wisanger Stormwater Drainage Mtce & Op Exp	4
51103 - MacGillivray Stormwater Drainage Mtce & Op Exp	5
51104 - Redbanks Stormwater Drainage Mtce & Op Exp	6
51105 - Dudley Stormwater Drainage Infrastructure Mtce	7
51106 - Kingscote Stormwater Drainage Infrastructure Mtce	A
51107 - Brownlow Stormwater Drainage Infrastructure Mtce	A
51108 - Penneshaw Stormwater Drainage Infrastructure Mtce	B
51109 - Parndana Stormwater Drainage Infrastructure Mtce	C
51110 - Vivonne Bay Stormwater Drainage Infrastructure Mtce	D
51111 - Nepean Bay Stormwater Drainage Infrastructure Mtce	E
51112 - American River Stormwater Drainage Infrastructure Mtce	F
51113 - Island Beach Stormwater Drainage Infrastructure Mtce	G
51114 - Baudin Beach Stormwater Drainage Infrastructure Mtce	H
51115 - Emu Bay Stormwater Drainage Infrastructure Mtce	I



Townships, Walking Trail



- At this stage need to spray 300mm each side of the seal
- If the path is breaking up, may need to also spray path itself

Parks & Gardens Mtce - Op Exp	District
58283 - West District Parks & Gardens Mtce & Op Exp	1
5828400003 - Western River Parks & Gdns Mtce Op Exp	2
5828400001 - Stokes Bay Parks & Gdns Mtce Op Exp	2
5828400002 - Snelling Beach Parks & Gdns Mtce Op Exp	2
58285 - Newland Parks & Gdns Mtce & Op Exp	3
58286 - Wisanger Pks & Gdns Op Exp	4
58288 - Redbanks Parks & Gdns Mtce & Op Exp	6
58289 - Dudley Parks & Gdns Mtce & Op Exp	7
58290 - Kingscote Pks & Gdns Op Exp	A
58291 - Brownlow Pks & Gns Op Exp	A
58292 - Penneshaw Parks & Gdns Mtce & Op Exp	B
58293 - Parndana Pks & Gdns Mtce & Op Exp	C
58294 - Vivonne Bay Pks & Gdns Mtce & Op Exp	D
58296 - Nepean Bay Pks & Gdns Mtce & Op Exp	E
58297 - American River Pks & Gdns Mtce & Op Exp	F
58300 - Baudin Beach Pks & Gdns Mtce & Op Exp	H
58301 - Emu Bay Pks & Gdns Op Exp	I



Campgrounds

- Spray garden beds if needed
- Blanket spray across open areas

<u>Campgrounds - Op Exp</u>	<u>District</u>
30076 - Redbanks Camping Grounds Op Exp (Browns Beach)	6
30077 - Emu Bay Camping Grounds Op Exp	I
30078 - Vivonne Bay Camping Grounds Op Exp	D
30079 - American River Camping Grounds Op Exp	F
30084 - Western District Campgrounds Op Exp	1
30086 - Wisanger Campgrounds Op Exp	4
3008000001 - Stokes Bay Camping Grounds Op Exp	2
3008000002 - Snelling Beach Camping Grounds Op Exp	2
3008000003 - Western River Camping Grounds Op Exp	2



Cemeteries

Spray area varies for each cemetery

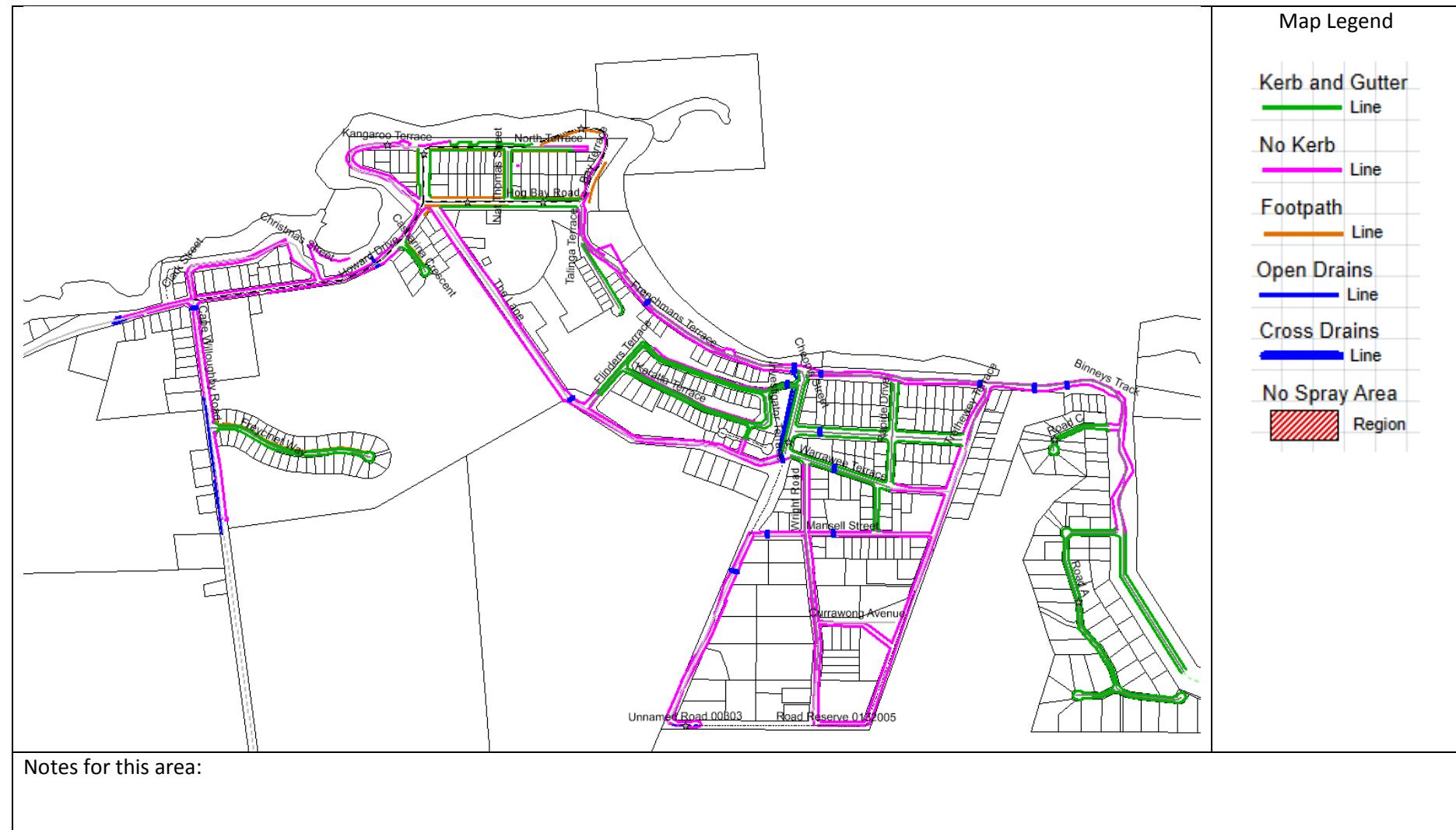
- Penneshaw and American River:
 - spray entire area inside fence line
- Kingscote:
 - spray all non-lawned areas and also the edges of the lawned areas



<u>Cemeteries - Op Exp</u>	<u>District</u>
35083 - Kingscote Cemetery	A
35084 - Penneshaw Cemetery	B
35085 - American River Cemetery	G

Maps

Penneshaw (full township)



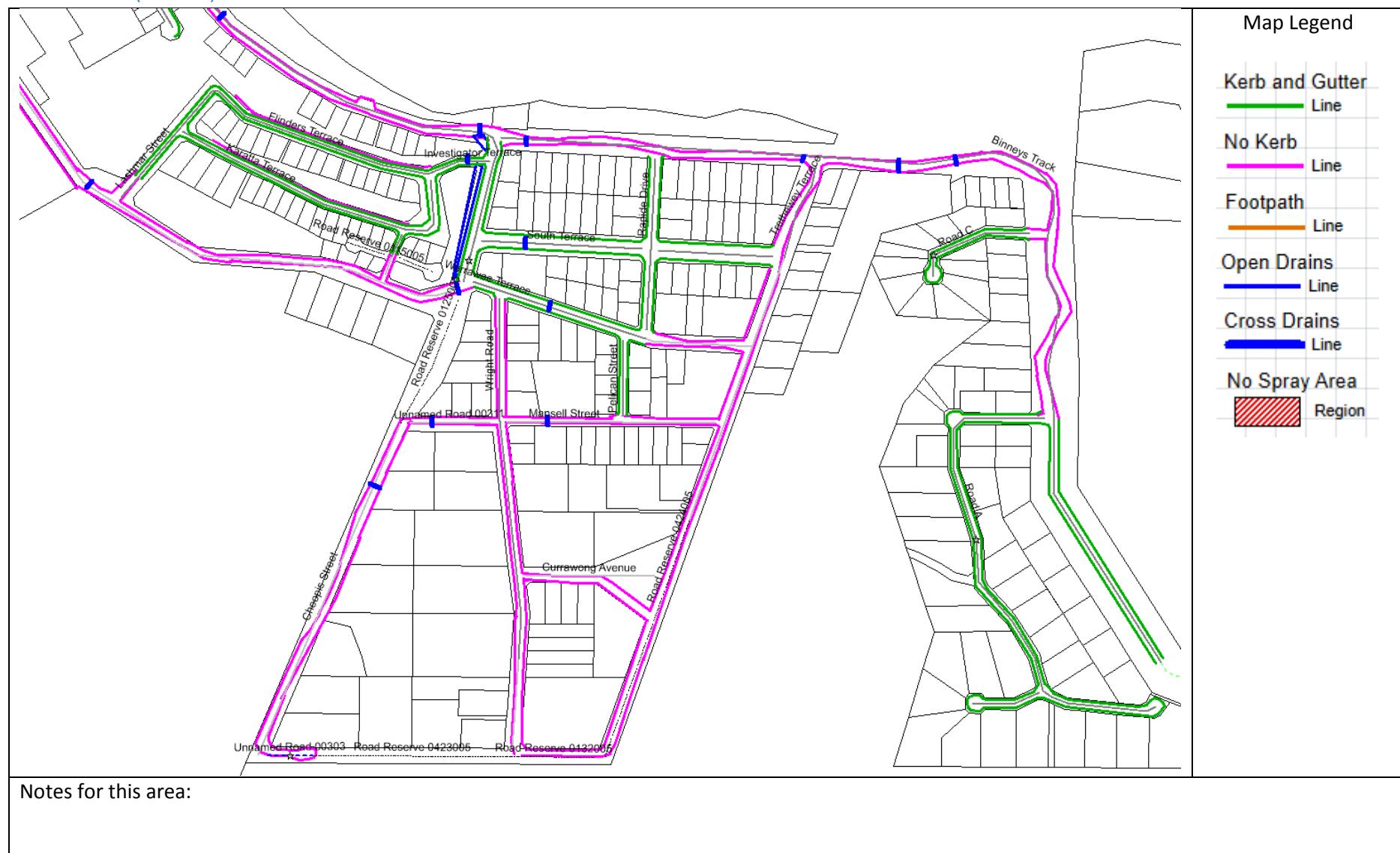
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Penneshaw (Area 1)



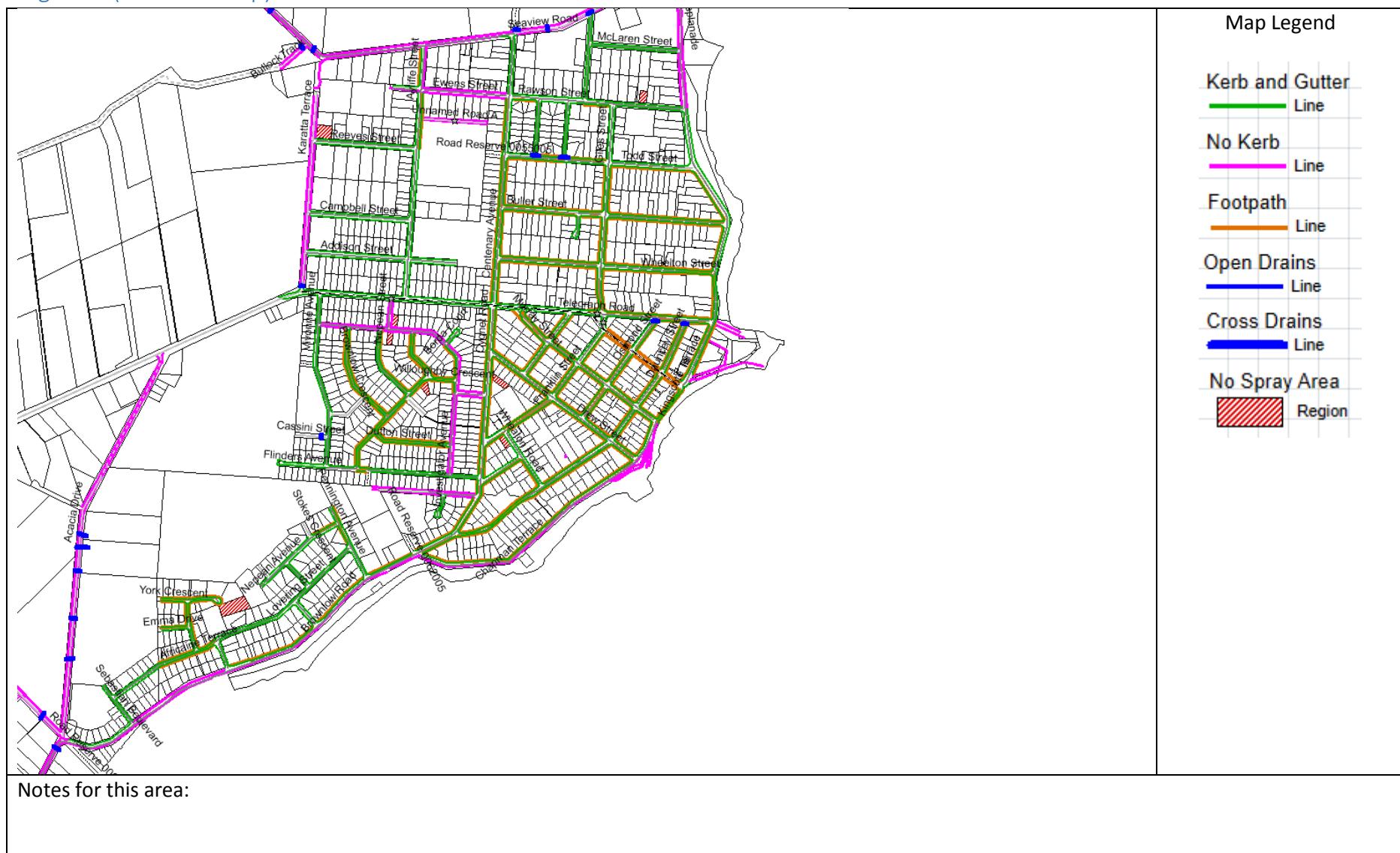
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Penneshaw (Area 2)



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Kingscote (Full Township)



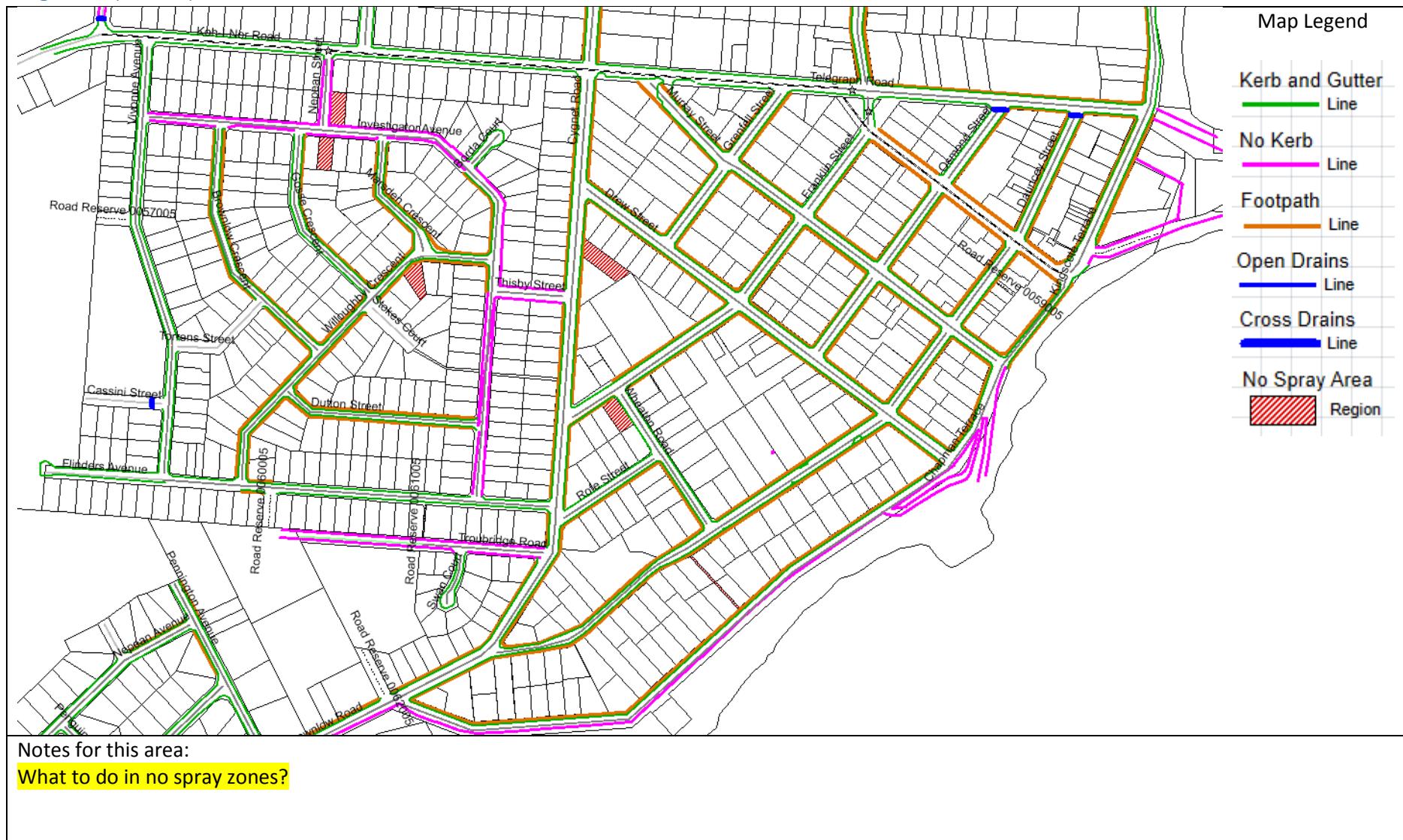
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Kingscote (Area 1)



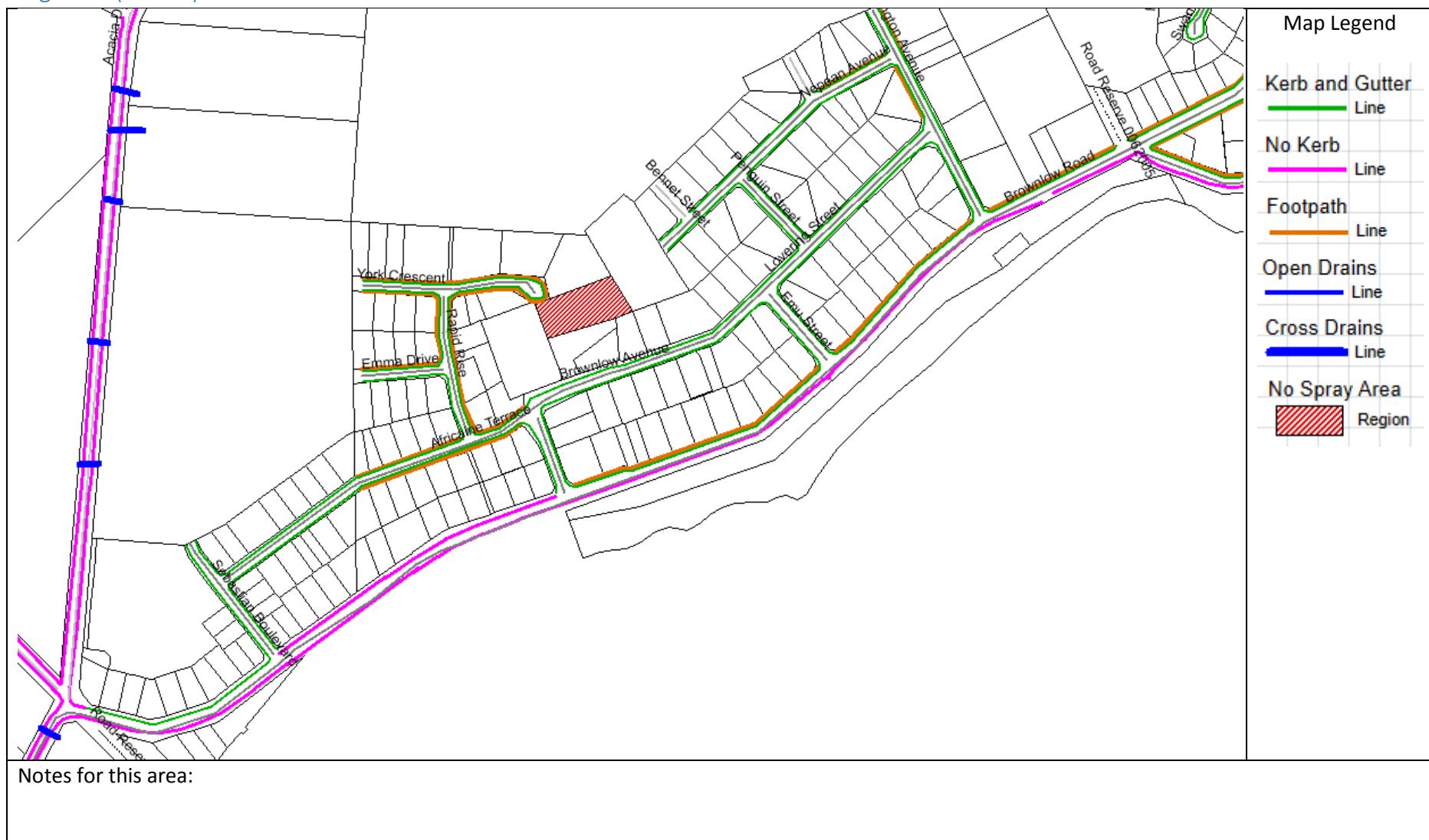
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Kingscote (Area 2)



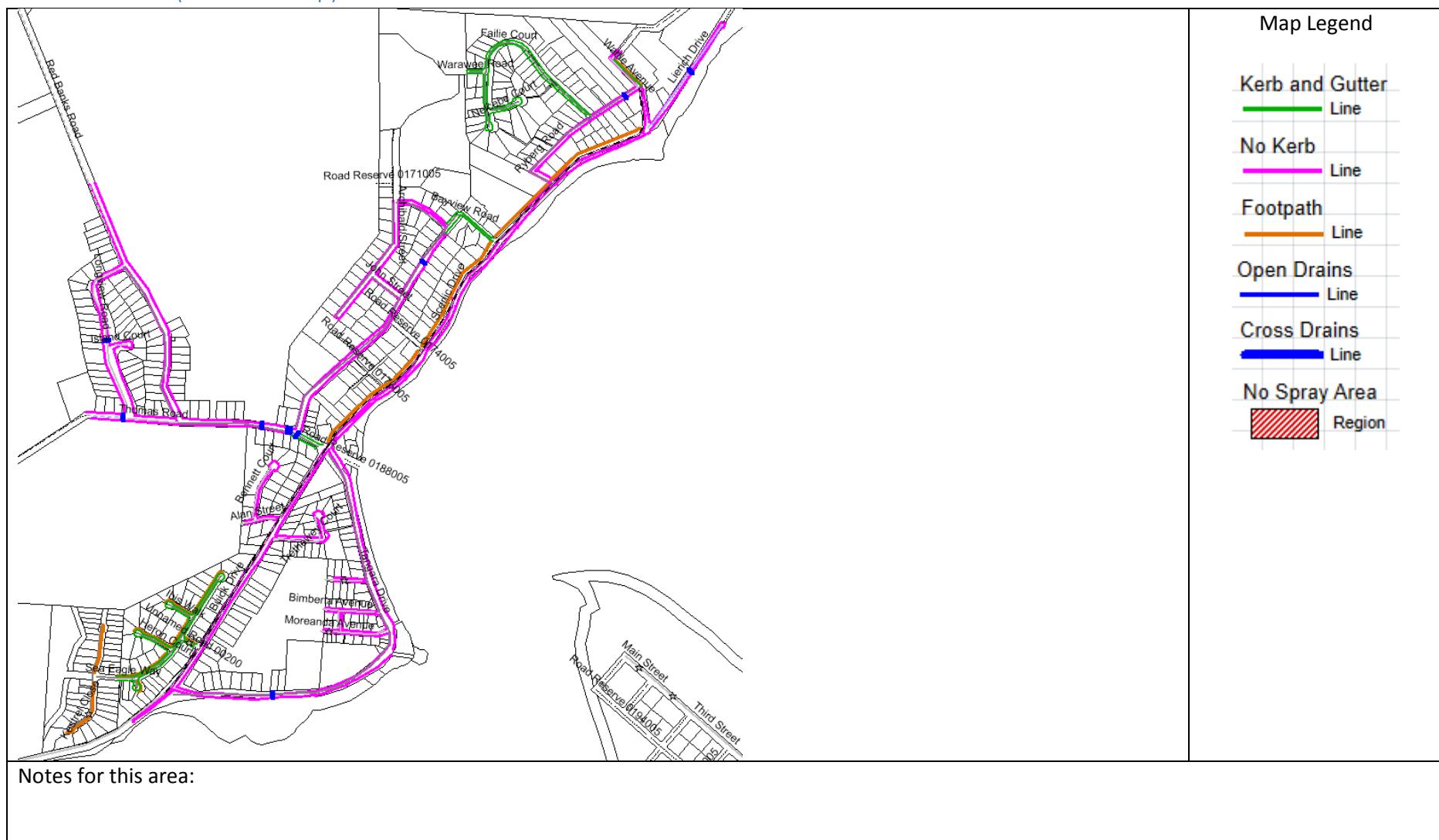
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Kingscote (Area 3)



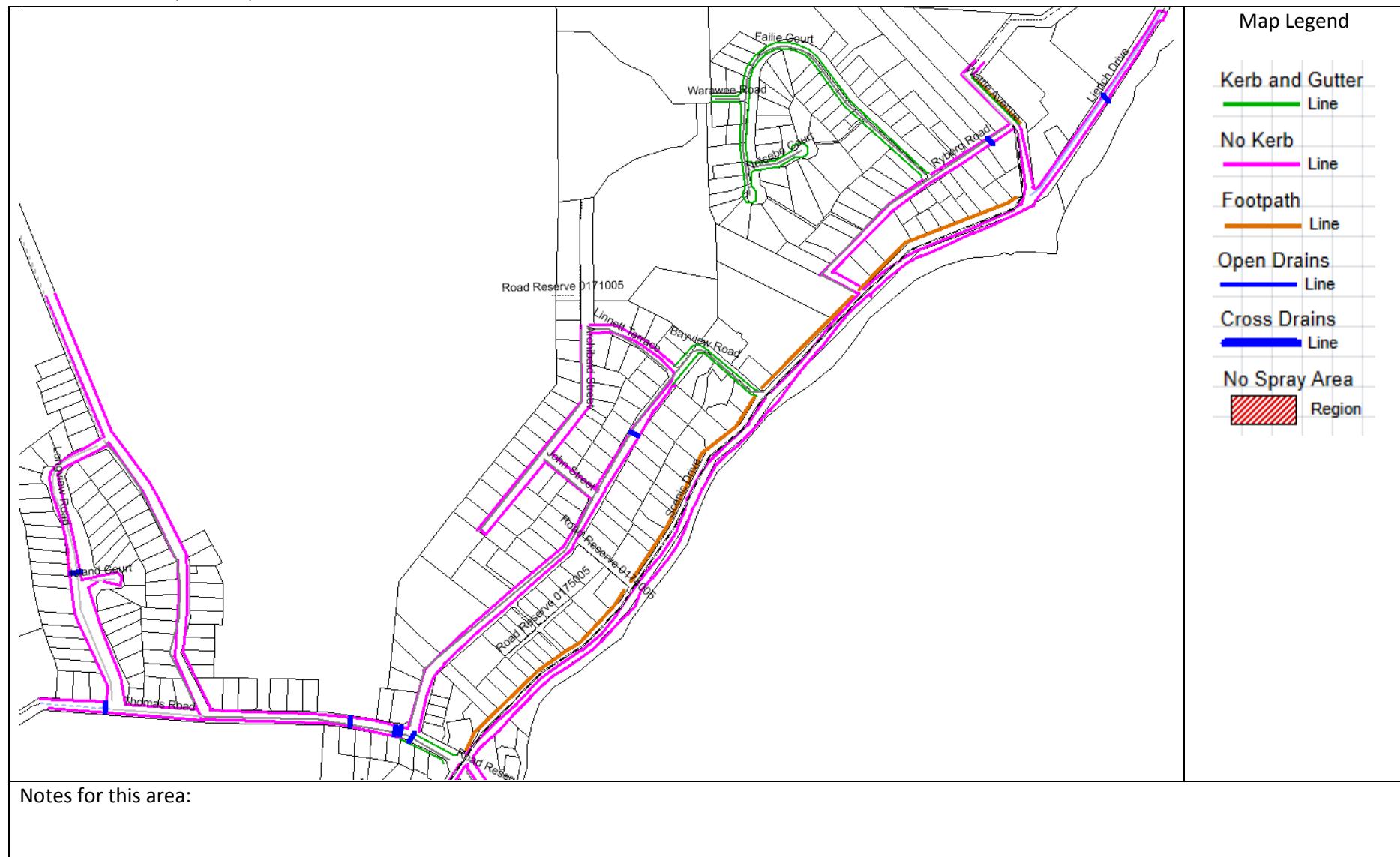
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American River (Full Township)



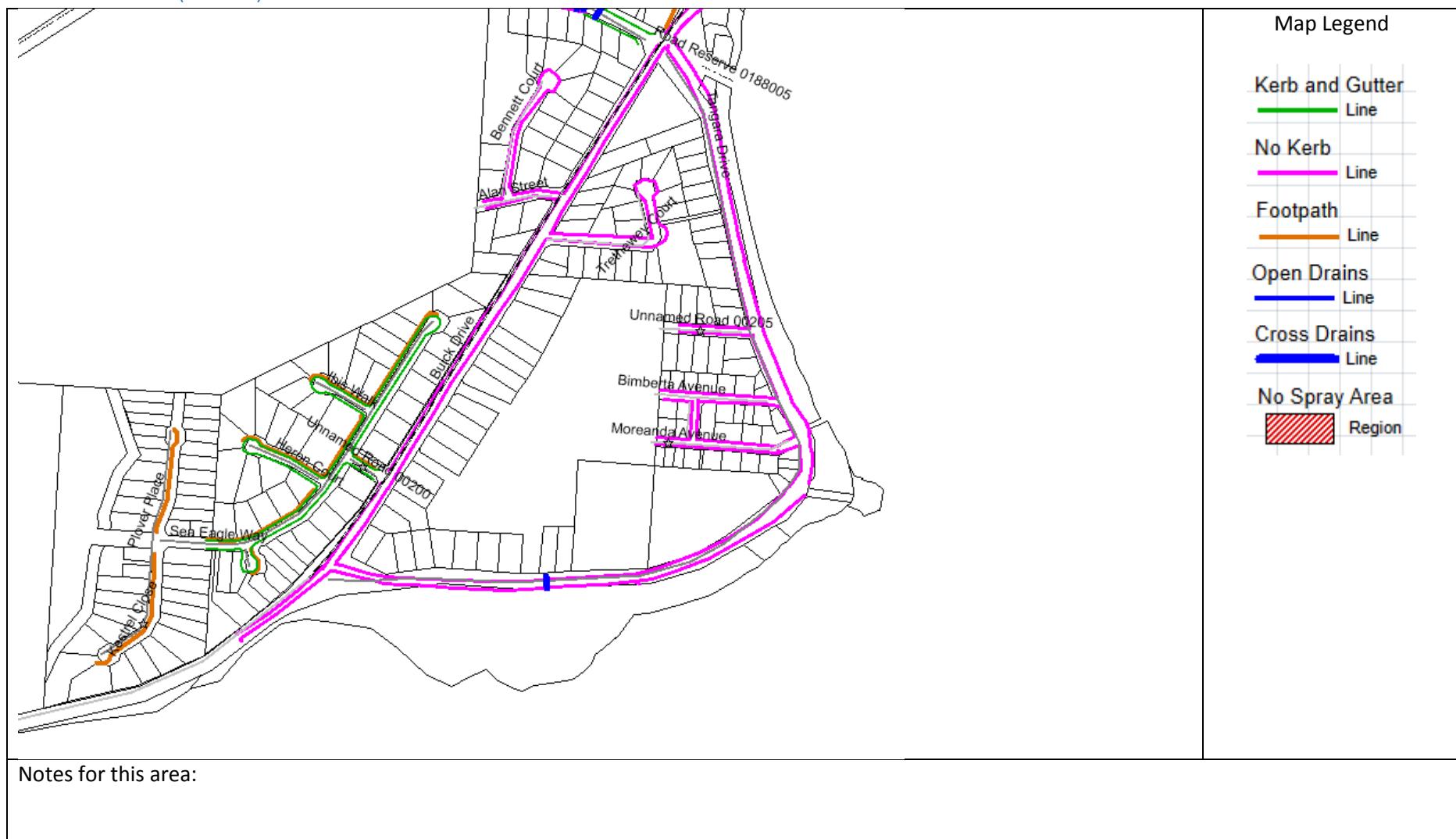
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American River (Area 1)



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American River (Area 2)



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Parndana (Full Township)



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Emu Bay (Full Township)



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Brownlow (Full Township)



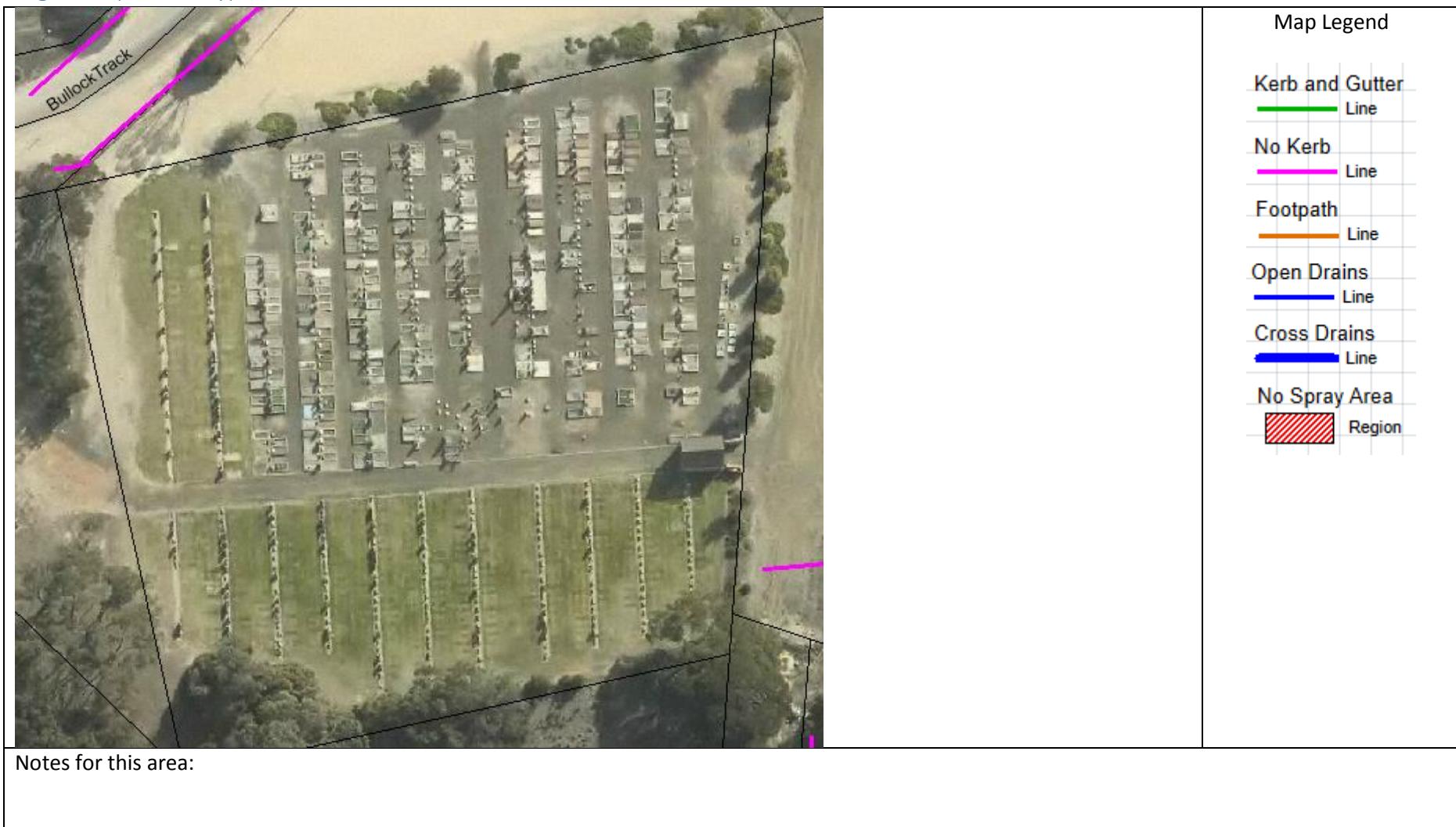
Baudin Beach (Full Township)



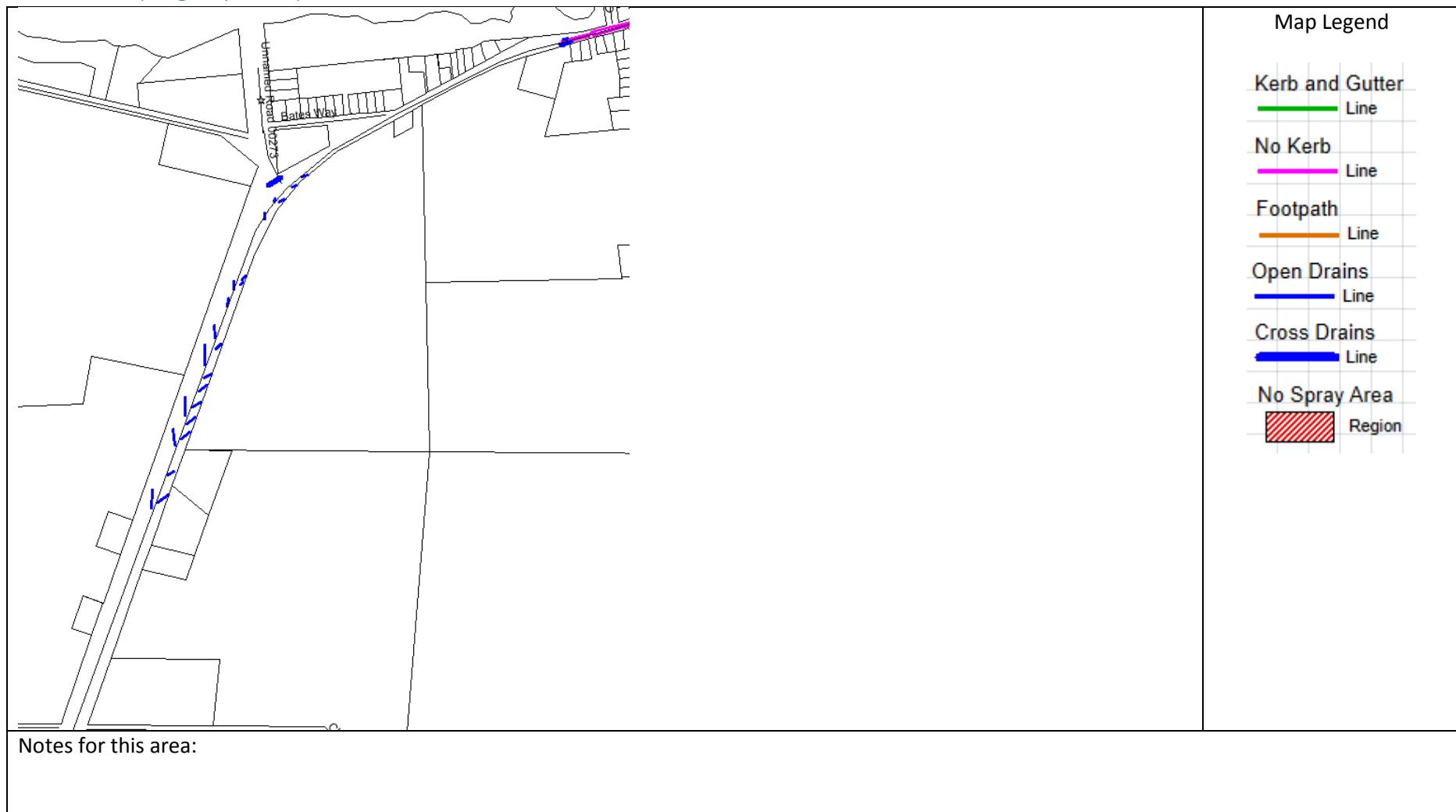
Penneshaw (Cemetery)



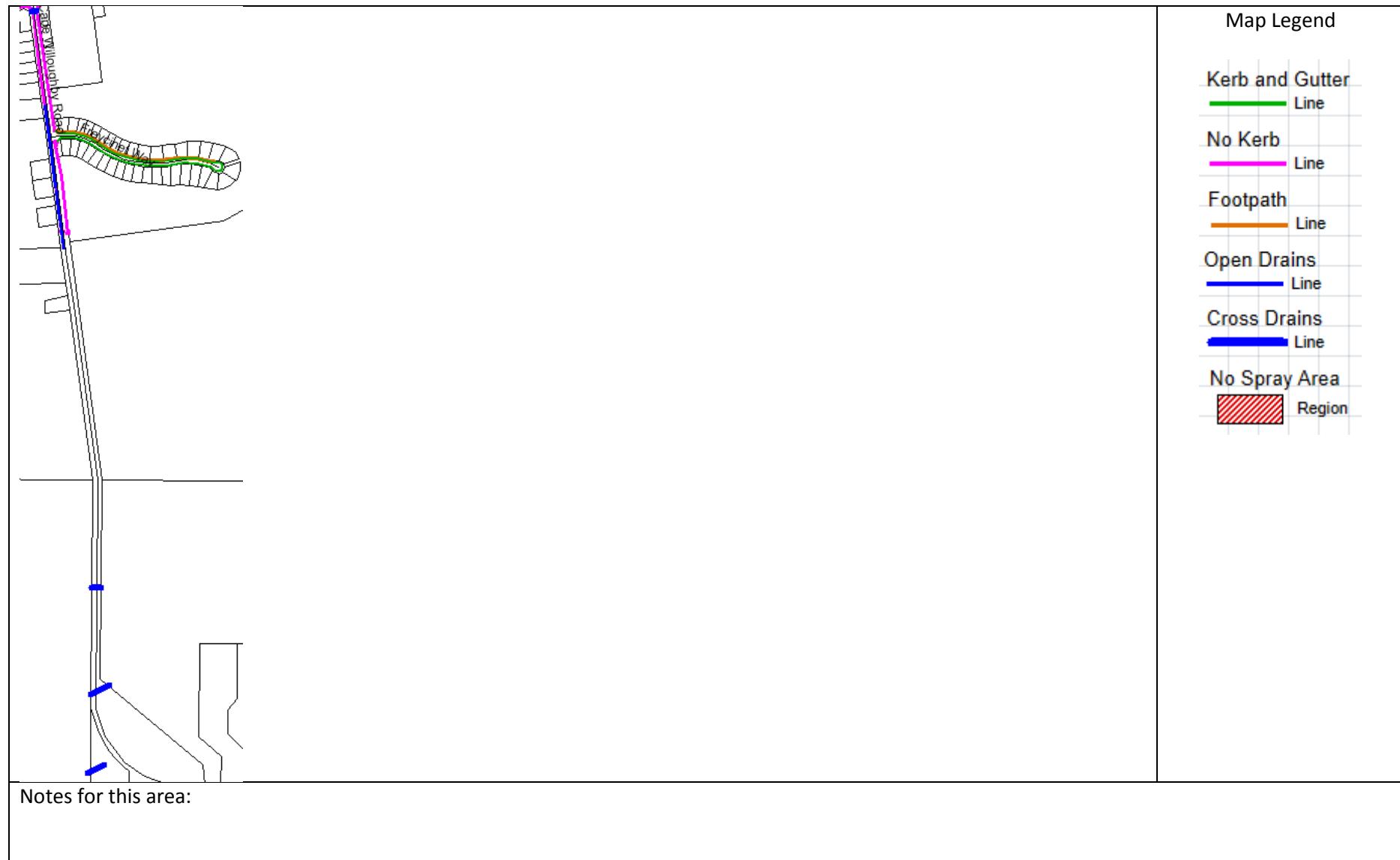
Kingscote (Cemetery)



Penneshaw (Hog Bay Road)



Penneshaw (Cape Willoughby Road)



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Kingscote (Cordes Rd, Governor Wallen Drive, Seaview Road)



Kingscote (Walking Trail)

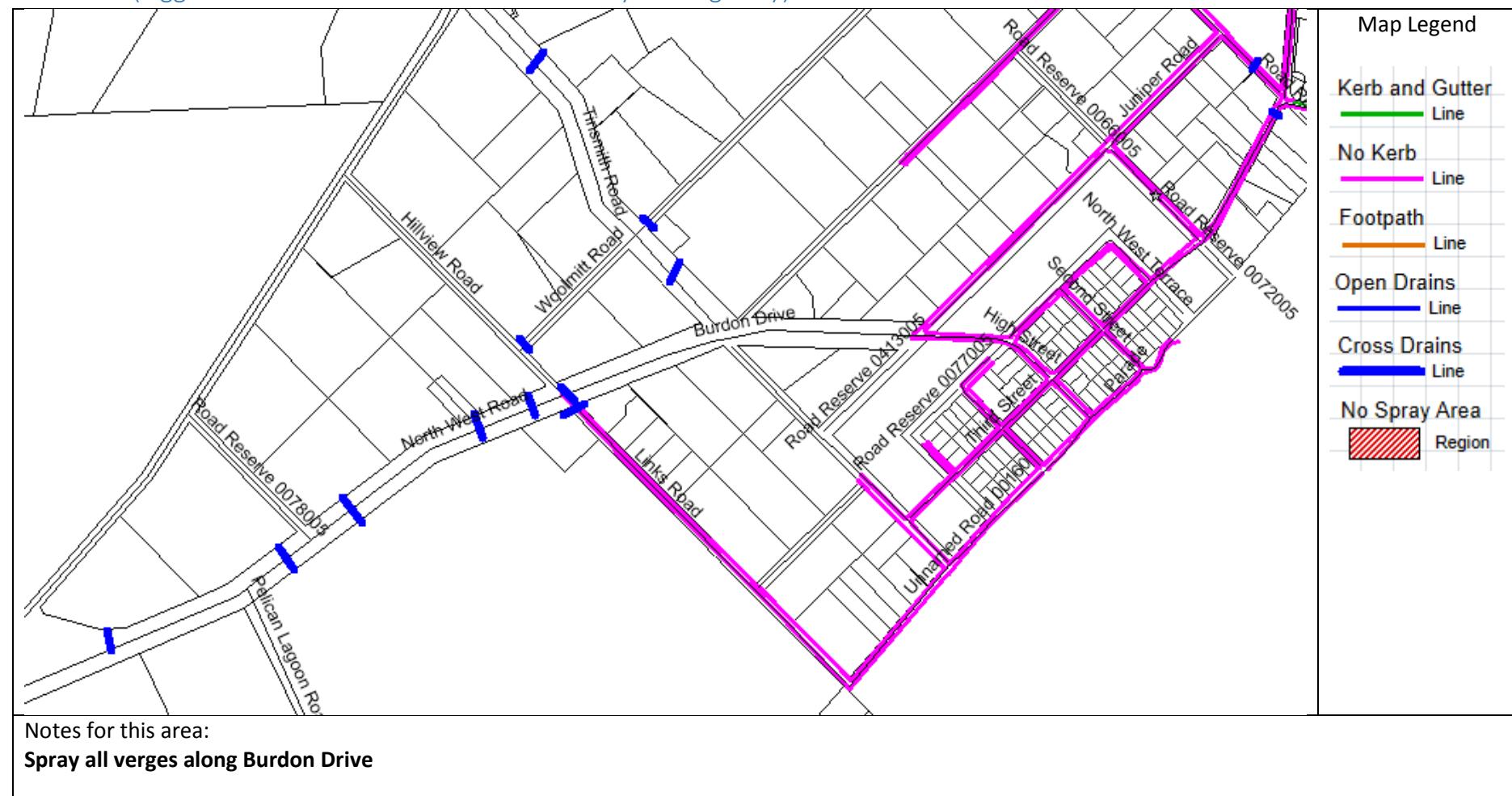
Map not yet available

Map Legend

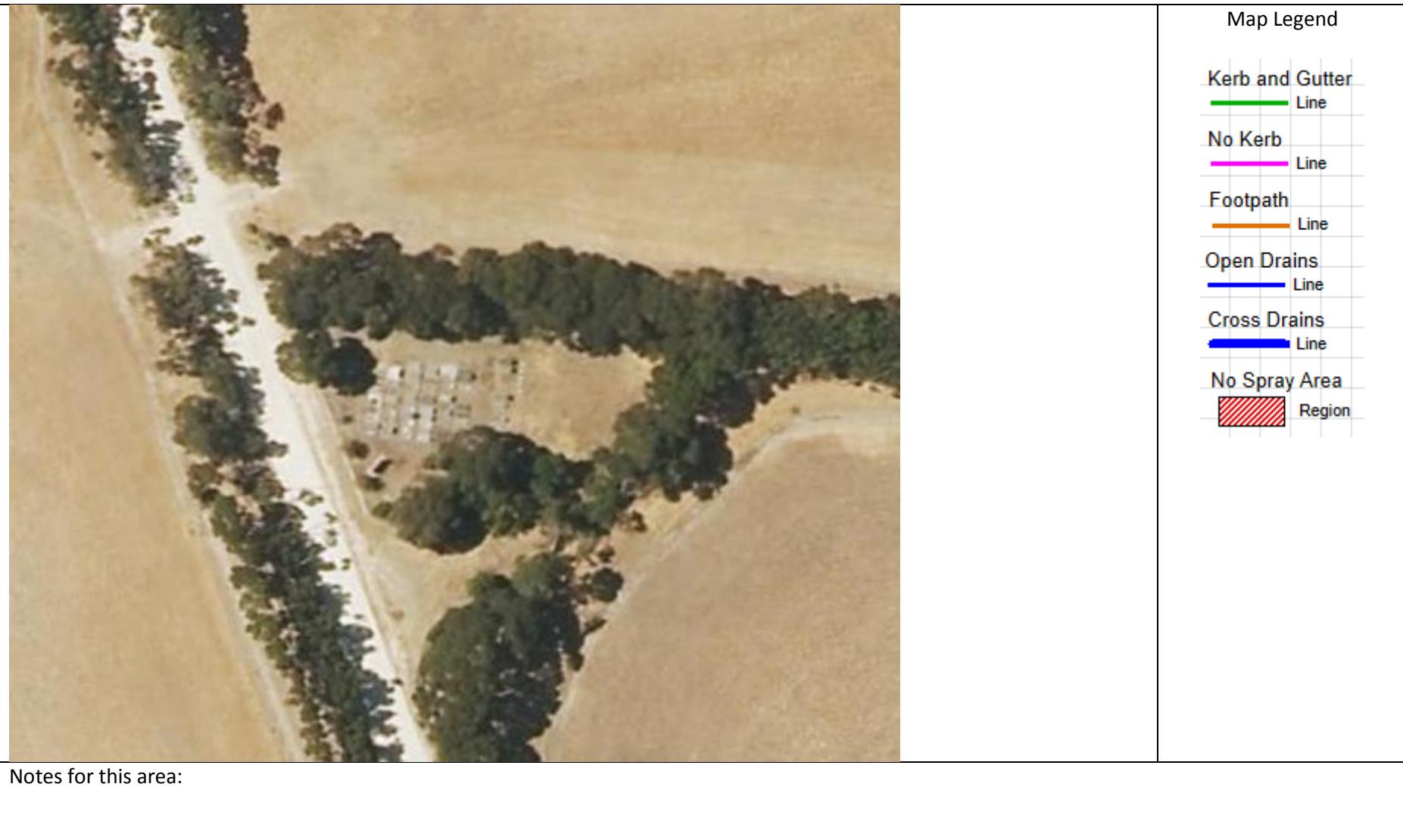
Kerb and Gutter		Line
No Kerb		Line
Footpath		Line
Open Drains		Line
Cross Drains		Line
No Spray Area		Region

Notes for this area:

Brownlow (Tiggemann's Corner to Burdon Drive to Playford Highway)



American River (Cemetery)



Notes for this area:

Vivonne Bay (Campground)



Map Legend

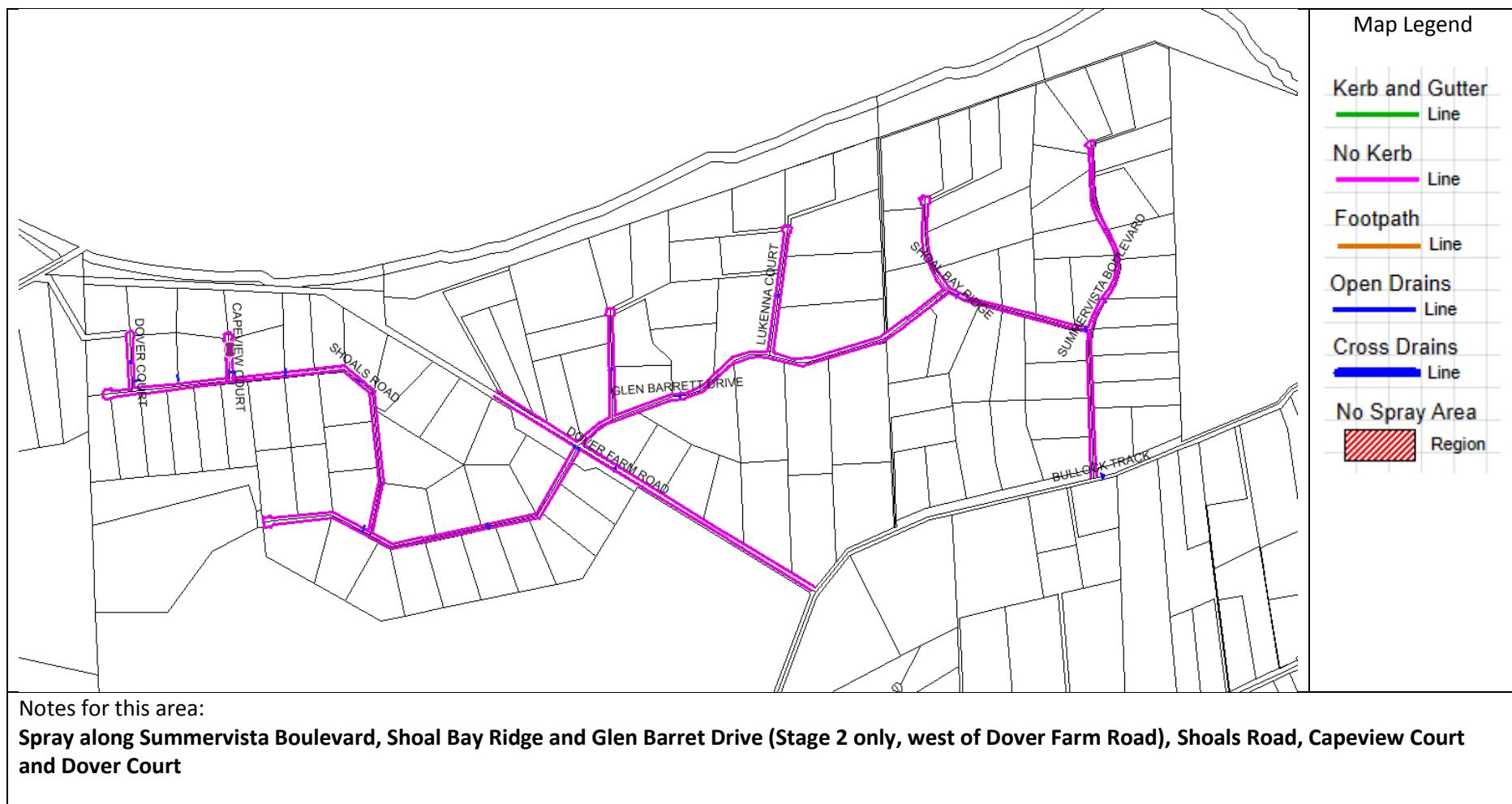
Kerb and Gutter		Line
No Kerb		Line
Footpath		Line
Open Drains		Line
Cross Drains		Line
No Spray Area		Region

Notes for this area:

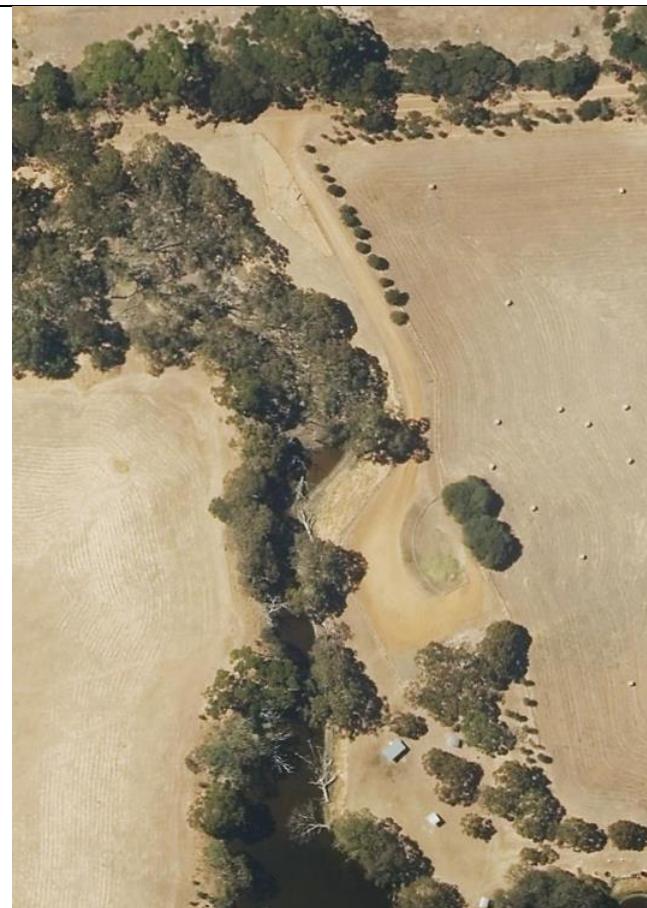
Western River (Campground)



Dover Farm



Duck Lagoon Campground



Map Legend

Kerb and Gutter	Line
No Kerb	Line
Footpath	Line
Open Drains	Line
Cross Drains	Line
No Spray Area	Region

Notes for this area: