

2.1 Reach One – Melton Rural

The Melton Rural reach runs from the Holden Road bridge, approximately five kilometres south to the Melton Highway bridge. It is mostly characterised by scattered, mature and, in many cases, ancient River Red Gums, located within the creek corridor, as well as some significant boulder outcrops and escarpments. These trees provide great habitat for local fauna.

Mount Kororoit, a mostly untouched volcanic hill, is prominent from most locations along the creek corridor within this reach.

The old Holden Road bridge and Kororoit Creek Farm are interesting historic locations. The old Holden Road bridge is an impressive, disused bluestone and timber structure located to the south of the current Holden Road bridge.

Kororoit Creek Farm, located adjacent to Mount Kororoit, is a privately owned farm with many intact and operational historic bluestone farm buildings as well as a prominent dry stone wall. Some of the oldest River Red Gums along the entire length of Kororoit Creek are located where the creek corridor passes through the farm.

Livestock is currently allowed access to the creek corridor by rural landholders. There are no defined tracks or trails providing access along the creek corridor, mainly because the land on both sides is privately owned.

There are no public roads that cross the creek corridor between Holden Road and the Melton Highway.



Biodiversity

Prior to European settlement the riparian zone would have carried Creekline Grassy Woodland dominated by Red Gum (*Eucalyptus camaldulensis*) surrounded by Plains Grassland (Oates and Taranto 2001). This area maintains its rural character. Due to the lack of development, riparian vegetation persists, including old-growth Red Gum and good instream vegetation.

Flora and Fauna Values

- Regionally-significant old growth Red Gums (*Eucalyptus camaldulensis*)
- Fragmented remnants of endangered Creekline Grassy Woodland following Kororoit Creek
- Locally to regionally-significant rocky escarpments and associated vegetation
- State-significant instream vegetation
- Potential faunal habitat for the Growling Grass Frog (Vulnerable – Environment Protection and Biodiversity Conservation Act, Endangered – DSE 2003), listed under the Flora and Fauna Guarantee Act 1988 – instream values / deep pools

Key Threats / Issues

- Land is freehold to the banks of Kororoit Creek with unrestricted stock grazing and trampling
- Terrestrial activities which may negatively impact water quality
- Weed invasion – see Appendix C
- Rabbit grazing and disturbance

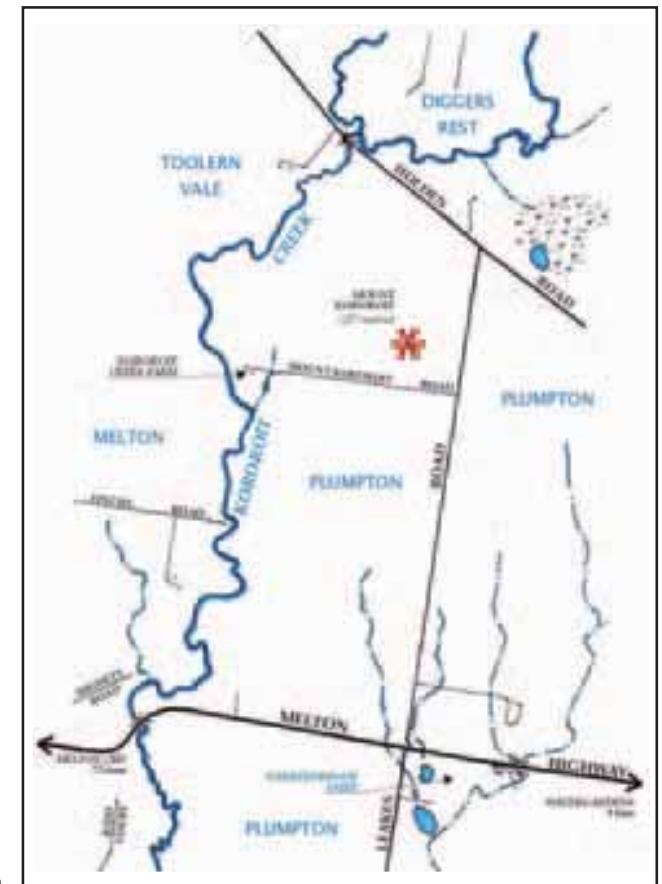


Figure 15: Ruin of the Old Holden Road Bluestone Bridge in Toolern Vale

Landscape Character

The Melton Rural Reach is defined by mainly flat, open rural land adjacent to the creek with stands of very old River Red Gum. The terrain is generally flat to gently undulating, typical of western basalt plains.

Mount Kororoit is very prominent in the northern sections of the reach, especially around Kororoit Creek Farm. The creek itself is generally incised with steep banks and is therefore out of sight, except where the creek is crossed (typically by roads). Views from these crossings are therefore important.

In some areas, the creek banks are higher on the western side, with a broader floodplain to the east. Visually, this exposes the western bank, such as at the Melton Highway crossing of the creek.

The character within the creek itself is visually and spatially enclosed, creating a sharp contrast with the open landscape of the plain. Trees, where they are present, are also located within the creek banks, emphasising the sense of enclosure.

Visual Features

Visual features in this reach are plentiful and varied because of the dominant rural nature of the land. Housing subdivisions and infrastructure do not clutter the landscape and long, distant views can be gained from several vantage points.

Some of the key visual features that are worth maintaining or enhancing in this reach are :

- views to Mount Kororoit from within the creek corridor;
- views from road bridges at the Melton Highway and Holden Road;
- views of ancient River Red Gums from the fringes of (and beyond) the creek corridor;
- views of rock escarpments from the fringes of (and beyond) the creek corridor; and
- views of rural elements such as windmills, sheds, etc.

Recreation and Linear Parkland

The Kororoit Creek corridor is not currently fully accessible for cyclists and pedestrians due to a lack of continuity with existing trails.

Following is a description of the existing recreation qualities of each planning unit along Kororoit Creek and the opportunities for trail creation and improvements to open space and recreation reserves. These are also described in the maps following this summary

Existing Shared Use Trails

There are no shared use trails within this section of the creek corridor. Private ownership is a key constraint on the provision of trails.

Opportunities for Shared Use Trails

- Long-term opportunities exist for the development of trails on either side or both sides of the creek corridor between the Melton Highway and Holden Road. The more undulating terrain in the upper reaches of the watercourse means there are various points along the creek where a route could access both sides of the creek. Farm bridges and fords or causeways could be used as crossing points, where they satisfy Melbourne Water's guidelines.
- Long-term opportunities exist to link trails developed along the creek south of Holden Road to trails north of Holden Road to Diggers Rest. Connections to Mount Kororoit, if appropriate, would offer great views of the surrounding area and the city skyline.
- Opportunities for local trail links along rural roads.

Figure 16: Red Gums along Dry Creek Bed in Plumpton



Figure 17: Ancient Red Gums and Creek Pools in Plumpton



Figure 18: Landscape of Red Gums, Rock Escarpments and Creek Pools in Plumpton



Shared Use Trail Issues

- At present, the draft cycle network proposals of the Melton Shire Open Space Strategy (Stratcorp, December 2002), do not propose bike trails along the Kororoit Creek within this reach. A ‘future trail’ is currently proposed along Leakes Road from the Western Highway to Melton Highway and then north to Holden Road. At Holden Road the trail would run westward and continue along Diggers Rest-Coimadai Road. The Melton Shire Open Space Strategy also proposes an on-road trail that runs east-west along the Melton Highway to connect Melton to the metropolitan area.
- Trail access through private property would need to be negotiated with private landowners or reserved for public acquisition.
- Public access points to the trail and related amenities need to be identified on public land or negotiated with private landowners or reserved for public acquisition.
- Trail planning needs to consider whether trails should be sited outside the immediate stream environs to experience the wider landscape and views.
- At present there are no public recreation nodes providing trail destinations along this reach nor is there visitor demand.

Existing Open Space

There are no existing open space nodes within this reach.

Opportunities for Open Space

- Long-term opportunities exist for provision of park nodes on one or both sides of Holden Road at the creek crossing, to enable the enjoyment of the scenic qualities of the creek and historic bridge and to provide access to future north-south trails.
- Similar long-term opportunities may exist at the western end of Mount Kororoit Road and at other points between Holden Road and Melton Highway, where east-west access roads stop at farm properties.
- At the Melton Highway, the creek corridor intersects with the proposed east-west on-road bike route. This is a very attractive vantage point and has potential as a district park node. However, the incised nature of the creek at this point makes safe access and parking difficult. An alternative access point would need to be identified within the road reserve on higher land to the east of the bridge.
- If an additional regional recreation node is required in the future, it could be developed in association with the commercial facilities at Warrensbrook Faire.
- Future recreation nodes or trails may include historic features within the corridor.

Open Space Issues

- In relation to trails, access to the creek through private property and the provision of visitor amenities would need to be negotiated with private landowners or reserved for public acquisition.
- Safe access points for recreational nodes along the creek need to be identified.
- At present, there is not a high visitor demand for open space in this reach.

REACH ONE ACTIONS

These actions are generally specific to this reach, and are more detailed than the overall Kororoit Creek Strategies.

	Reach One – Melton Rural (MR)	Lead Agency	Priority
MR1	Assess the priorities for Melbourne Water’s Stream Frontage Management program and the need for investigative work to gather data about the condition of Kororoit Creek through its rural catchment and improve water quality.	Melbourne Water	High
MR2	Plan the integration of the Kororoit Creek Trail with other trails proposed as part of the Melton Shire Open Space and Trail Strategy. This would include providing links along: <ul style="list-style-type: none"> • Leakes Road and the Melton Highway to Warrensbrook Faire; • Leakes Road, south to Rockbank; and • the Melton Highway to Melton. 	Melton Shire	Medium
MR3	Plan a shared trail from Holden Road to Melton Hwy as a long term extension of the Kororoit Creek Trail.	Parks Victoria Melton Shire	Low
MR4	Through trail planning, establish the Holden Road bridge area, the Melton Hwy bridge area and Kororoit Creek Farm as future linear open space along a creek trail.	Melton Shire	Low
MR5	Investigate providing a shared trail link to the top of Mount Kororoit.	Melton Shire	Medium
MR6	Protect the following key views through appropriate landscape and land management: <ul style="list-style-type: none"> • views to Mount Kororoit from the creek corridor • views to the Old Holden Road Bridge from Holden Road 	Melton Shire	Medium
MR7	Assess whether the bluestone buildings and stone walls of the Kororoit Creek Farm warrant protection through the Heritage Overlay.	Melton Shire	Low
MR8	Investigate options to protect and enhance remnant grasslands, escarpments and River Red Gums.	Melton Shire	Medium
MR9	Liaise with private land holders to reduce stock access and trampling.	Melton Shire	Medium



early 20C historic bluestone bridge



EVC - Creeklane Grassy Woodland - in-stream vegetation quality high



EVC - Creeklane Grassy Woodland - in-stream vegetation quality high



Creek junction at Melton Hwy

Waterway summary

Planning Unit 1 Melton Rural North
Stream Character - Confined single channel with steep banks, low-moderate sinuosity, partly vegetated.
Water Quality Issues - Predominantly associated with rural/agricultural impacts - not considered to be a significant regional issue.
Water Quantity Issues - Some extraction is occurring, however this is managed by SRW and is not considered to be of concern.

KEY - ecologically significant sites/zones

Site	Sec.	Description
40-51	1	EVC - Creeklane Grassy Woodland - in-stream vegetation quality high
43	1	terrace & escarpment
51	1	possibly old cutbox of river in site
52	1	Rocky escarpment
53	1	Rocky escarpment

KEY - geomorphologically significant sites/zones

Site	Sec.	Description
1	1	Creek junction delta & cut-off meander
2	1	Escarpment
3	1	Escarpment and gravel terrace sequence
4	1	Meanders and terraced floodplain

LEGEND

Kororoit creek channel	Railway lines	historical site
Kororoit creek tributaries	existing transmission line alignments	geomorphological site (with reference number)
roads to be marked		ecological site (with reference number)
		significant stream deposit

Note Aboriginal cultural heritage places have been identified in the area covered by this map. For the most up to date information on the presence of Aboriginal cultural heritage places check the Cultural Resource Management Grid maps on Aboriginal Affairs Victoria's web site at <http://www1.dvc.vic.gov.au/law>



KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 1 (Melton Rural)
NATURAL SYSTEMS & HERITAGE ANALYSIS
 Drawing No. LSP 13

Prepared for The Department of Sustainability and Environment by
 Land Design Partnership Pty Ltd and Team
 September 2005





Oldest historic bridge near the Holden Road bridge



Valley of Kororoit Creek, southwest of Mt Apollo (seen beyond)



Stuart Bridge near the Melton Highway bridge with Equipment beyond



Regions near the Melton Highway bridge

Landscape / Visual Character:

MELTON RURAL
Open landscape adjacent to creek, generally devoid of trees. The terrain is generally flat to gently undulating, typical of western coastal plains.

The creek itself is generally incised with steep banks, and is therefore out of sight, except where the creek is crossed (typically by roads). Views from these crossings are therefore important.

In some areas, the creek banks are higher on the western side, with a broader floodplain to the east. Usually, this expresses the western bank, such as at the Melton Highway crossing of the creek.

The character within the creek itself is usually semi spatially enclosed, creating a sharp contrast with the open landscape of the plain. Trees, where they are present, are also located within the creek banks, emphasizing the sense of enclosure.

SECTION 001
Kororoit Creek near Kororoit Creek Farm

SECTION 002
Rural Land Adjacent to Melton Highway Bridge

LEGEND

	Kororoit creek course		setback lines		No regional structures / developments
	Kororoit tributaries		significant vehicular creek crossing points		No regional structures / developments
	roadways as marked		existing transmission line alignments		significant regional sites



KOROROIT CREEK STRATEGIC PLAN 2005-2030
Reach No. 1 (Melton Rural)
LANDSCAPE CHARACTER ANALYSIS
Drawing No. LSP 07

Prepared for The Department of Sustainability and Environment by
Land Design Partnership Pty Ltd and Team
September 2005



Key strategic issues/opportunities for parkland & trail provision

1. physical conditions mean that there is opportunity for long term trail access along both or either sides of the creek.
2. the main constraint to trail development is private ownership of the land adjoining the creek.
3. the planning scheme may present an opportunity for the reservation of land along the creek for long term trail development.
4. negotiations should be undertaken with owners to determine the feasibility of continuous linked access.
5. Holden rd. and Melton hwy. road reserves present an opportunity for regional connection to the creek and for the provision of amenities and perhaps parking.
6. the incised nature of the creek raises the issue of whether any future trail should be within the creek or on the plain, above the bank.
7. land ownership and restriction on residential development means provision of recreation sites in the future will be minimal, thereby focusing recreation on the linear experience of the creek.



opportunity for long term development of trail running south to Melton hwy which alternates between both sides of creek using natural causeways & fords
opportunity: walking, nature conservation studies, historic farms

Issue: partially restored Kororoit ck. Homestead
opportunity: future inclusion in pathways network and great regional tourism potential

Ford crossing
opportunity: future bridge construction may be beneficial although retaining ford is recommended for use in trail network & historical reasons

local trail links
opportunity: develop local links to the future trail using rural roads

Melton hwy crossing - magnificent red gum landscape
opportunity: ensure protection, potential interpretation and recreational node - small car park & access path could be provided on higher land in road reserve 150m east of bridge, creating a district level activity node for picnics, sightseeing, etc.

Issue: damming of creek for water use in horse stud
opportunity: demolish dam to return creek to natural flow pattern

Issue: neglected early 20C bluestone bridge
opportunity: incorporate into future pathway networks with relevant historic information

junction of east and west tributaries with high landscape values, mature red gums and prominent boulder outcrops
opportunity: site for interpretive signage and recreational node - provision of picnicking, walking trail to south; transport. Assess capacity for long term link along east branch of creek to Diggers Rest

LEGEND

Revised creek course	walking links	walking trail alignments	existing transportation alignments
Revised creek structure	significant residential creek crossing points	key regional attractions/destinations	key regional structures/destinations
roadways to be marked	proposed future trail alignments	significant regional sites	open space parkland

north

KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 1 (Melton Rural)
LINEAR PARKLAND & TRAIL ISSUES AND OPPORTUNITIES
 Drawing No. LSP 01

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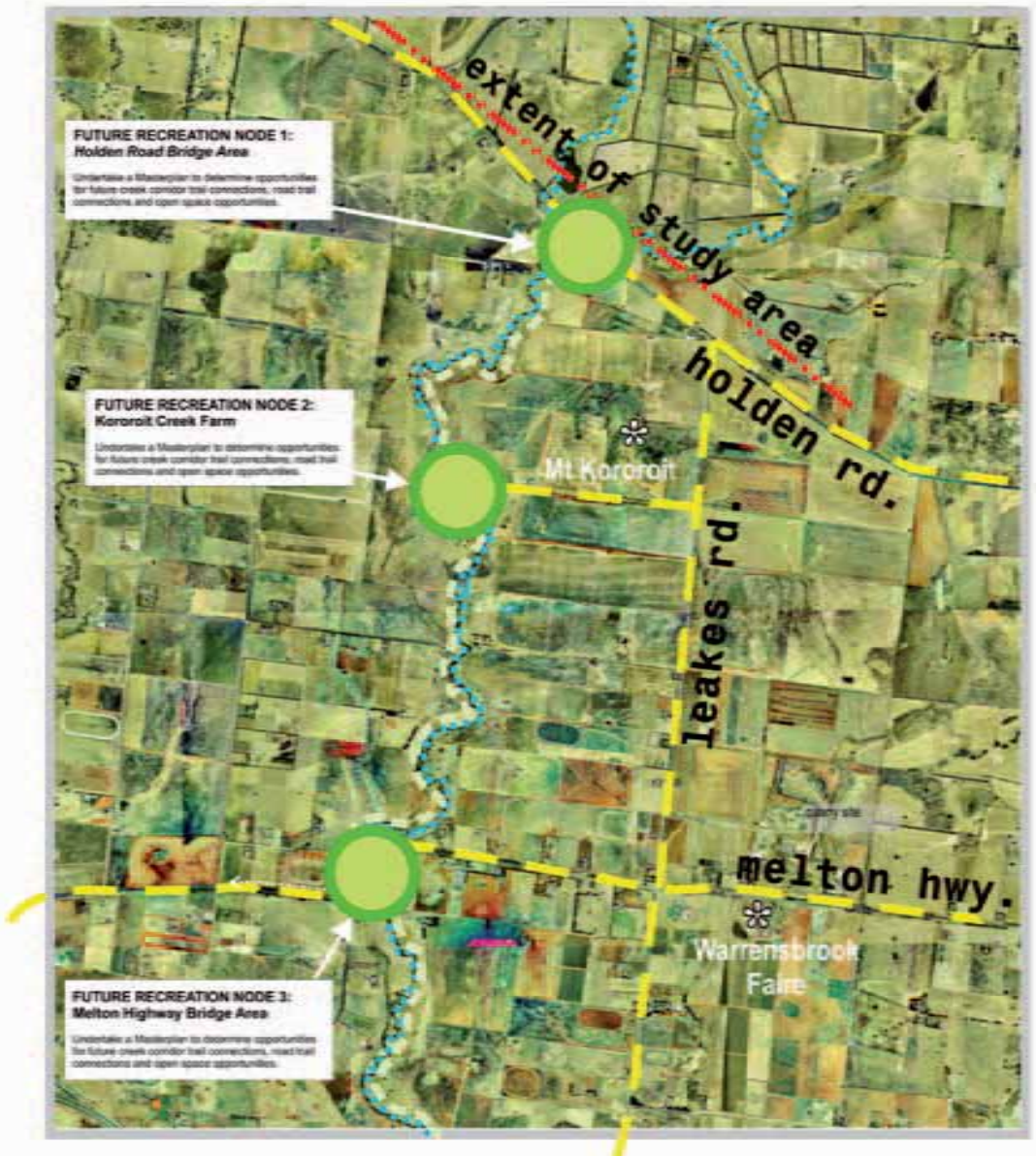
SCALE (kms.)

Prepared for The Department of Infrastructure by
 Land Design Partnership Pty Ltd and Team
 September 2005



LEGEND

-  Existing Creek Alignment
-  Proposed Future Linear Trail Alignment
-  Proposed Secondary Trail Links
-  Potential Future Recreation Nodes, comprising:
 - * Access to the Creek Corridor and the future linear shared trail system
 - * Public Open Space development
 - * Car parking areas; and
 - * Visitor Amenities



KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 1 (Melton Rural)
PROPOSED SHARED TRAIL and LINEAR PARKLAND

Drawing No. EST 01
 Prepared for The Department of Sustainability & Environment by
 Land Design Partnership Pty Ltd and Team
 September 2005



2.2 Reach Two – Rockbank Rural

The Rockbank Rural reach runs from the Melton Highway bridge, approximately 12 kilometres south-east to the western edge of the new housing development of Caroline Springs. It is mainly characterised by scattered, mature River Red Gums located within the creek corridor, as well as some significant boulder outcrops and escarpments.

Deanside Homestead and the site of the former Rockbank Inn are interesting historic places located along this reach. The Rockbank Inn, located at the Beattys Road bridge, is now a ruin but was once the only crossing point of Kororoit Creek for horse-drawn vehicles between Melbourne and the Ballarat goldfields. The privately owned Deanside Homestead, further downstream, has an impressive collection of old bluestone buildings and what was once the largest shearing shed in the southern hemisphere.

There are also several marshy, low-lying areas, close to the creek corridor within this reach, associated with small ephemeral drainage lines that flow into Kororoit Creek. Most of these marshy areas are located within private rural land.

Livestock is currently allowed access to the creek corridor by rural landholders in most cases.

Like the Melton Rural Planning Unit, there are no defined tracks or trails providing access along the creek corridor, mainly because the land on either side is privately owned.

South of the Melton Highway, the creek is crossed by Leakes Road, Beattys Road, Sinclairs Road and Clarke Road/ Monaghan Lane, with all but Leakes Road being flood-prone fords of the creek.

Biodiversity

Prior to European settlement the riparian zone would have carried Creekline Grassy Woodland dominated by Red Gum (*Eucalyptus camaldulensis*) surrounded by Plains Grassland (Oates and Taranto 2001). This area maintains its rural character and hence riparian vegetation persists including old-growth Red Gums and good instream vegetation.

Flora and Fauna Values

- Regionally significant old growth Red Gums (*Eucalyptus camaldulensis*)
- Fragmented remnants of endangered Creekline Grassy Woodland following Kororoit Creek
- Locally to regionally significant rock escarpments and associated vegetation
- State significant instream vegetation
- Significant rock escarpments
- Potential Faunal habitat for the:
 - Growling Grass Frog (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act 1988) – Instream values / deep pools
 - Striped Legless Lizard (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act 1988) – Grassland areas/ rocky outcrops
 - Great Egret (Vulnerable – DSE 2003, listed under the FFG Act 1988) – Aquatic/ riparian areas, important for foraging habitat
 - Brown Quail (Near Threatened – DSE 2003, listed under the FFG Act 1988) – grassland areas near water bodies.

Clarke Road Grasslands

Clarke Road Grasslands consist of more than 100 hectares of tussock grassland dominated by Kangaroo Grass (*Themeda triandra*) with a drainage line through the centre of the site containing many species (McDougall, 1987). The area comprises endangered Plains Grassland (listed under the FFG Act 1988) and associated wetland formation. The present condition of this vegetation is not known.

In 1987 McDougall described the site as “one of the largest remaining stands of basalt plains grassland in Victoria”. It was considered to be of State significance (McDougall 1987) and worthy of acquisition for protection and management. It provides important habitat for the Striped Legless Lizard, as well as four other Nationally threatened fauna species (DSE 2003b).



Figure 19: Floodplain Landscape to the West of the Leakes Road Bridge



Key Threats / Issues

- Land is freehold to the banks of Kororoit Creek with unrestricted stock grazing and trampling
- Terrestrial activities which may negatively impact water quality
- Weed invasion – see Appendix C
- Rabbit grazing and disturbance.

Landscape Character

As with the Melton Rural Reach, the creek typically runs through open rural grassland. The prevalence of old River Red Gum trees diminishes as the creek corridor approaches the urban fringe.

Upstream of Beatty's Road, the terrain is flat to gently undulating floodplain, immediately adjacent to the creek corridor, merging into a broader basalt plain. As the terrain is typically floodplain, the creek corridor itself is generally less incised than in the Melton Rural Reach, but still has steep banks, and therefore remains out of sight, except where the creek corridor is crossed. Views from these crossings are important in exposing the character of the creek corridor.



Figure 20: Old Red Gums and Creek Pools near the Melton Highway

Downstream of Beatty's Road, the typical terrain changes slightly, emerging from a floodplain to run through a basalt plain characterised by gently undulating terrain, with a noticeably rocky surface (floaters). The terrain also features localised areas of poor drainage, appearing as seasonal wetlands.

In some areas, the creek corridor itself has a 'wetland' character (such as at Leakes Road), creating some visual diversity and interest. Banks are higher on the western side, with a broader floodplain to the east. Visually, this exposes the western bank, such as at the Melton Highway crossing of the creek. The character within the creek corridor itself is less enclosed than upstream areas. Where they are present, trees within the creek corridor banks add visual diversity as do occasional built elements such as bridge remnants at Beatty's Road. The location of trees, mainly within the creek corridor channel, means any remnant stands away from the creek (such as at the Leakes Road 'Signals Site' in Rockbank) are particularly significant.

Visual Features

Visual features in this reach, as in the Melton Rural Reach, are plentiful and varied because of the dominant rural nature of the land. Housing subdivisions and infrastructure do not clutter the landscape and long, distant views can be gained from several vantage points. In addition, historic places of interest could become important destinations along the creek corridor in the future.

Some of the key visual features that are worth maintaining or enhancing in this reach are:

- Views to the distant Mount Kororoit from within the creek corridor
- Views from road bridges at Leakes Road, Beattys Road and Sinclairs Road.
- Views of ancient River Red Gums from the fringes of (and beyond) the creek corridor.
- Views of rock escarpments from the fringes of (and beyond) the creek corridor.
- Views of the ruins of the Rockbank Inn and the ruin of the former Beattys Road bridge.
- Views of the historic property at Deanside.
- Views of rural elements such as windmills, sheds, etc.



Figure 21: Landscape to the West of Sinclairs Road Bridge

Open Space and Trails

Existing Shared Use Trails

There are no shared use trails within this reach of the creek corridor. Private land ownership is a key constraint on the provision of trails.

Opportunities for Shared Use Trails

- Long-term opportunities exist for the development of a trail along the creek from the Melton Highway to Caroline Springs. This has been identified as a major off-road proposal in the Melton Open Space Strategy (draft, September 2002) and as a 10 year + action in Linking People and Spaces (2002).
- The main trail should be supported by secondary trail links along Leakes Road to Warrensbrook Faire and south to the wetlands and River Red Gum forest of Signals Station and then to the Western Freeway. A link could be provided along the freeway and back to Kororoit Creek via Deanside Drive.
- Downstream from the hotel ruins, opportunities exist for a series of 'local' circuit trail loops if the swamp areas to the north and south of the Creek in the lower section of this reach can be accessed. Attempts should also be made to negotiate access to the historic Deanside property at the western end of Reed Court.
- A new shared use trail should provide pedestrian and cycle access to the future Regional Park, west of Caroline Springs.
- The draft cycle network proposals of the Melton Shire Open Space Strategy (Stratcorp, December 2002), proposes a future trail along Leakes Road from the Western Highway to Melton Highway and then north to Holden Road. This would allow linkage and access from the creek to commercial and other opportunities on both the Western Freeway and the Melton Highway.
- Links could also be developed to the east into the Caroline Springs reach and to key recreation, educational, retail and commercial nodes in that reach.

Shared Use Trail Issues

- Trail routes in this reach should seek to provide access to the different micro-environments of the creek corridor and ensure users can both get close to, and have views along, the narrow lagoon reaches that are a feature of the creek corridor in this reach.



Figure 22: Open Creek Corridor Landscape Looking South from Beattys Road

- The existence of extensive low lying swamp land areas is likely to be a constraint to the siting and construction of a trail in some locations.
- Trail access through private property would need to be negotiated with private landowners or reserved for public acquisition.
- Public access points to the trail and related amenities need to be identified on public land or negotiated with private landowners or reserved for public acquisition.
- Trail planning needs to consider whether trails should be sited within the immediate stream environs to experience the wider landscape and views.
- At present there are no public recreation nodes providing trail destinations along this reach nor is there sufficient visitor demand.

Existing Open Space

There are no existing open space nodes within this reach.

Opportunities for Open Space

- At the Melton Highway, the creek corridor intersects with the proposed east-west on-road bike route. This is a very attractive vantage point and has potential as a district park node. However, the incised nature of the creek at this point makes safe access and parking difficult. An alternative access point would need to be identified within the road reserve on higher land to the east of the bridge.
- The historic Rockbank Inn ruins site (located where Beattys Road crosses the creek) has great potential as a future district park node. The history of the site (the main crossing point into Melbourne during the gold rush days), its elevated location and nearby geologically significant alluvial floodplains offer a range of recreational and interpretive experiences.
- The historic Deanside Farm property at the western end of Reed Court in Plumpton also has great potential as a future district park node. The property contains a number of intact bluestone farm buildings including an historically significant shearing shed.
- The area around Sinclairs Road bridge and Leakes Road bridge also has potential for development as a district park node.
- Land to the west of Caroline Springs, with strong linkages to Kororoit Creek and areas of environmental significance, has potential for the location of the new Regional Park that will serve the residents of Caroline Springs and the wider community.
- Future recreation nodes or trails may include historic features within the corridor.

Open Space Issues

- In relation to trails, access to the creek through private property and the provision of any related visitor amenities would need to be negotiated with private landowners or reserved for public acquisition.
- Safe access points for recreational nodes along the creek need to be identified.
- Long term future recreation nodes at the Rockbank Inn site, the Deanside Farm property and the Sinclairs Road bridge would all require negotiation with private land owners. Parking and other facilities would also need to be carefully sited.
- At present, there is not a high visitor demand for open space in the upstream areas of this reach.

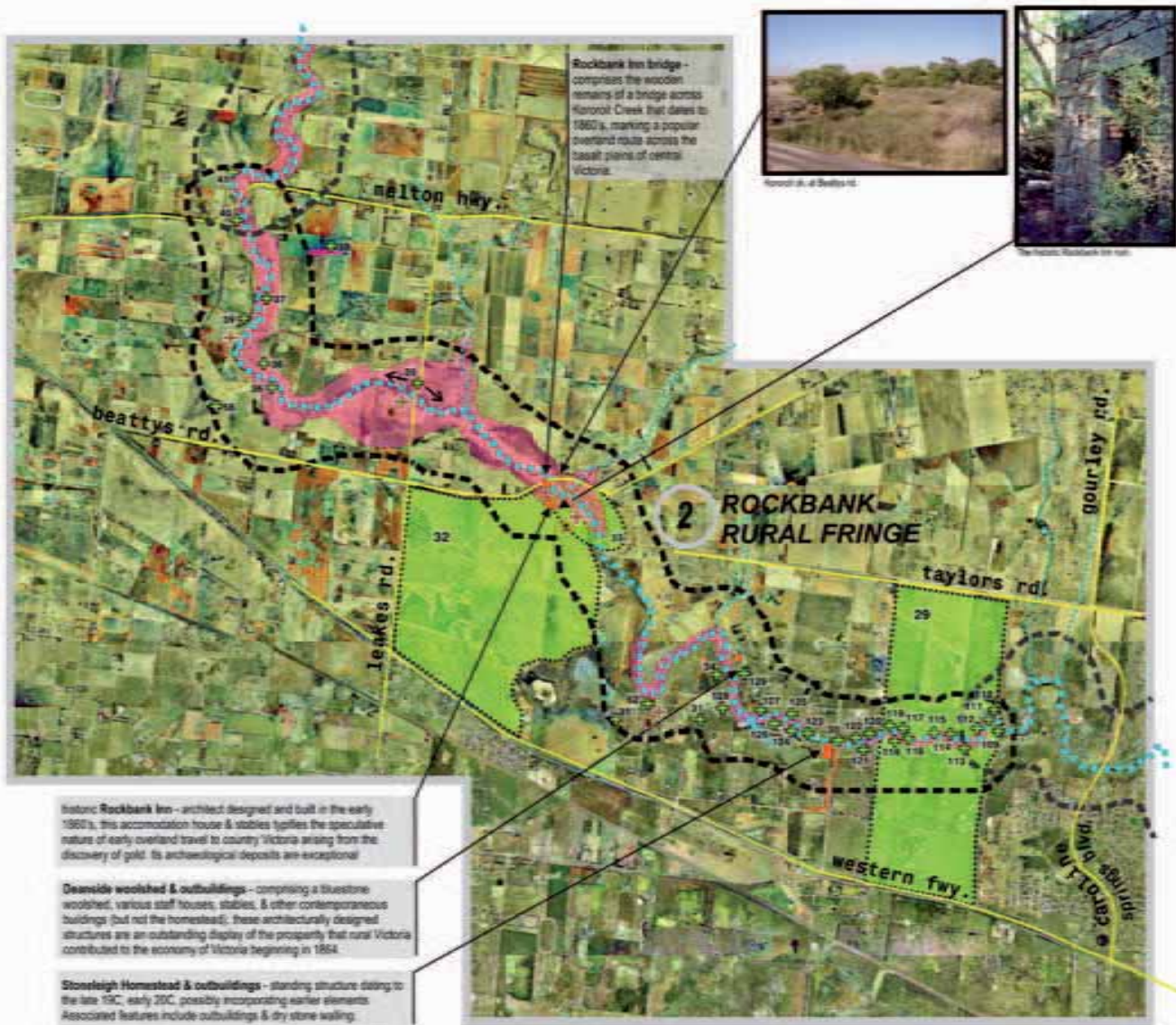
- Development of the new Regional Park west of Caroline Springs would need to consider potential connection to, and the protection and enhancement of, the existing Clarke Road Grasslands.

- Interpretation and education focus on natural systems, geomorphology, indigenous cultural heritage, and European settlement and transport.

Reach Two – Rockbank Rural (RR)		Lead Agency	Priority
RR1	Extend, where possible, Melbourne Water’s Stream Frontage Management program to undertake weed control, fencing and revegetation between Sinclairs Road and the Melton Highway.	Melbourne Water	High
RR2	Ensure that any planning policy to protect geomorphologic values includes the significant wide alluvial floodplain, upstream from Beattys Road.	Melton Shire	High
RR3	Investigate the significance of the nearby ecological and geomorphological sites (wetlands, drainage lines, the Red Gum Forest at the Signals Site) to assess the suitability of linking those areas with the Kororoit Creek linear park.	Melton Shire	High
RR4	Assess whether the following places warrant protection through the Heritage Overlay: <ul style="list-style-type: none"> • the Rockbank Inn and old bridge ruins at Beattys Road; • the bluestone buildings at Deanside Farm; and • Clarkes Road Ford. 	Melton Shire	Medium
RR5	Ensure planning of the new Regional Park west of Caroline Springs includes appropriate connection and access to the Kororoit Creek corridor.	Parks Victoria Melton Shire	Medium
RR6	Plan the integration of the Kororoit Creek Trail with other trails proposed as part of the Melton Shire Open Space and Trail Strategy. This would include providing links along: <ul style="list-style-type: none"> • the Melton Highway to Melton; • Sinclairs Road; • Leakes Road to Warrensbrook Faire, and • Leakes Road, south to the Western Highway 	Melton Shire	Medium
RR7	Identify a strategic alignment for a shared trail along the creek corridor from the Melton Highway to Caroline Springs as a long term extension of the Kororoit Creek Trail.	Melton Shire Parks Victoria	Low
RR8	Establish the Rockbank Inn area, the Sinclairs Road Bridge area, and the Deanside Farm as future linear open space nodes as part of the planned trail.	Melton Shire	Medium
RR9	Investigate upgrading the crossing at Sinclairs Road to improve safety.	Melton Shire	Medium
RR10	Consider appropriate means to protect the views from the creek corridor to the following locations: <ul style="list-style-type: none"> • the Rockbank Inn site and Beattys Road Bridge; • Deanside Farm. 	Melton Shire	Low
RR11	Investigate measures to protect and enhance the Clarke Road Grasslands.	Melton Shire Parks Victoria	Medium



Figure 23: Floodplain Landscape to the West of the Leakes Road Bridge



Rockbank Iron bridge - comprises the wooden remains of a bridge across Koroit Creek that dates to 1860's, marking a popular overland route across the basalt plains of central Victoria.



Historic Rockbank Inn - architect designed and built in the early 1860's, this accommodation house & stables typifies the speculative nature of early overland travel to country Victoria arising from the discovery of gold. Its archaeological deposits are exceptional.

Deanside woolshed & outbuildings - comprising a limestone woolshed, various staff houses, stables, & other contemporaneous buildings (but not the homestead). These architecturally designed structures are an outstanding display of the prosperity that rural Victoria contributed to the economy of Victoria beginning in 1854.

Stoneleigh Homestead & outbuildings - standing structure dating to the late 19C, early 20C, possibly incorporating earlier elements. Associated features include outbuildings & dry stone walling.

Waterway summary
Planning Unit 2
Melton Rural South
Stream Character - Confined single channel with steep banks, low-moderate siltosity, partly vegetated.
Water Quality Issues - Predominantly associated with rural/agricultural impacts - not considered to be a significant regional issue.
Water Quantity Issues - Four extraction licences occur in this area, but as previously stated, this is not considered to be of significant concern.
Stream Management Issues - Melbourne Water is the waterway manager for Koroit Creek.

Key ecologically significant sites/zones

Site	Sec.	Description
29 (zone)	2 & 3	Clarks Road Grassland area - EVC Plains Grassland - Lignum wetland
30	2	Deep pools; E. camaldulensis (stands of)
31	2	Deans Marsh
32 (zone)	2	EVCs - Plains Grassland, wetland formation - Lignum wetland/dominant overstorey E. camaldulensis/ part of the (SW) Rockbank Radio Station
33	2	Former lake sediments, incised floodplain, lava ridge sections (Beattys rd)
34	2	Rocky Escarpment
35 (zone)	2	Instream vegetation/Riparian vegetation - not marked on EVC map, meander scrolls in creek form
36	2	Box Thorn on Floodplain
37	2	E. camaldulensis in riparian zone
38 (zone)	2	steep-sided ridges either side of floodplain valley
39	2	steep-sided ridges - escarpment, meanders & terraced floodplain
40-51	1 & 2	EVC - Creekside Grassy Woodland - instream vegetation quality high
56	2	Remnant wetland, highly degraded
62	2	incised avul meander
108	2	Remnant Indigenous Vegetation
109	2	Remnant Mature Red gums
110	2	Spectacular Rock Escarpment
111	2	Remnant Indigenous Vegetation
112-113	2	Remnant Indigenous Waterway Edge Vegetation
114	2	Spectacular Rock Escarpment
115-116	2	Remnant Mature Red gums
117	2	Spectacular Rock Escarpment
118	2	Remnant Indigenous Waterway Edge Vegetation
119	2	Remnant Indigenous Vegetation
120-122	2	Unmodified escarpment and stream system
123	2	Remnant Indigenous Vegetation
124	2	Remnant Indigenous Waterway Edge Vegetation
125	2	Remnant Indigenous Vegetation
126	2	Remnant Indigenous Waterway Edge Vegetation - low-lying areas
127	2	Remnant Indigenous Vegetation - Natural pool and riffle sequence
128	2	Unmodified escarpment and stream system
129	2	Remnant Indigenous Vegetation

KEY - geomorphologically significant sites/zones

Site	Sec.	Description
5	2	Meanders and terraced floodplain
6	2	Meander scrolls
7	2	Former lake sediments, incised floodplain, lava ridge sections (Beattys Road)
8	2	incised avul meander

LEGEND

- Red dashed line: Koroit Creek course
- Blue dashed line: Koroit Creek tributaries
- Yellow line: roadways as marked
- Pink area: significant Aboriginal deposit
- Black dashed line: existing transmission line alignments
- Red star: national site (geomorphological site with reference number)
- Green star: ecological site (with reference number)
- Green square: ecological zone (with reference number)

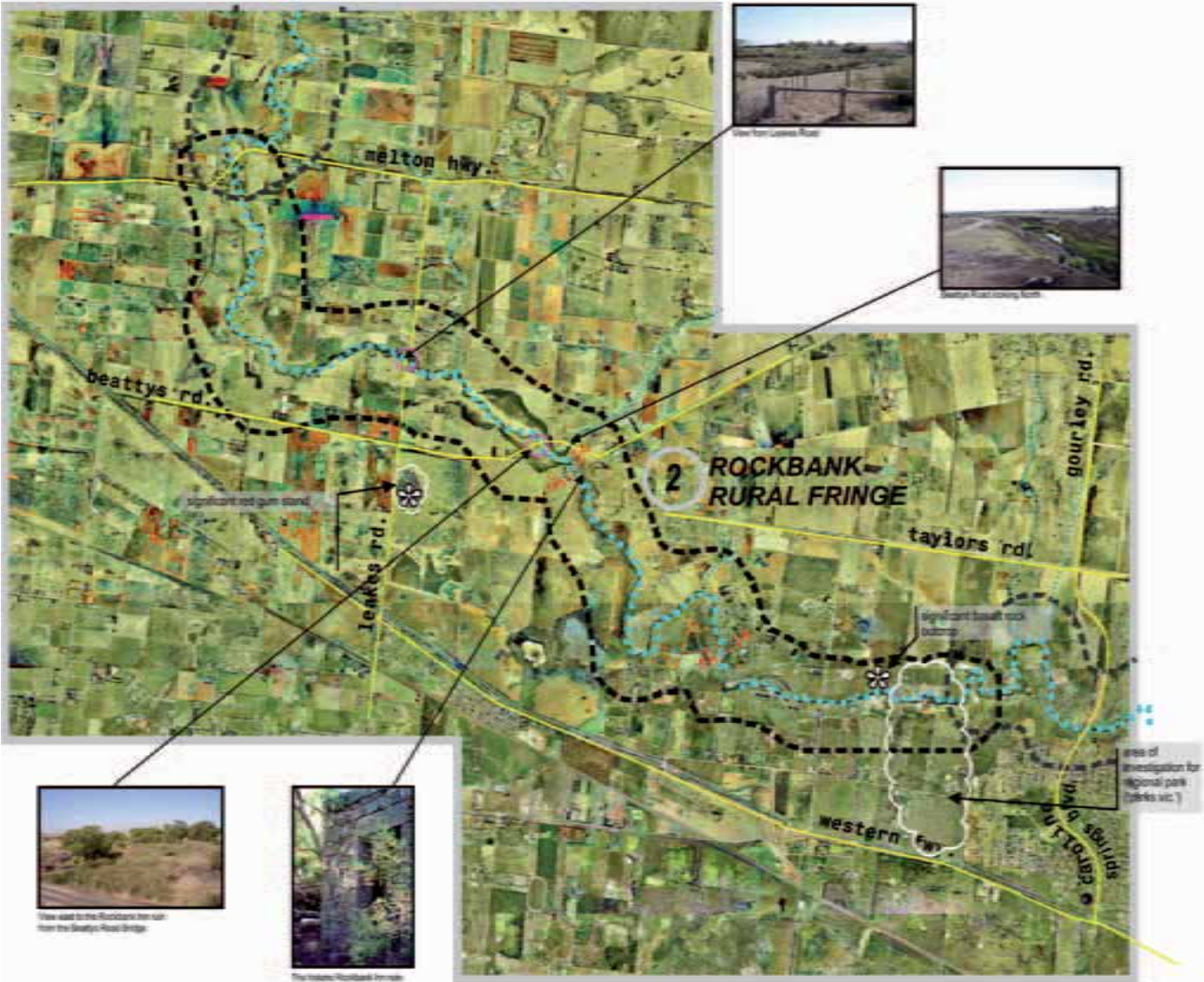
Note: Aboriginal cultural heritage places have been identified in the area covered by this map. For the most up to date information on the presence of Aboriginal cultural heritage places check the Cultural Resource Management Grid maps on Aboriginal Affairs Victoria's web site at <http://www1.dvc.vic.gov.au/sar>



KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 2 (Rockbank Rural Fringe)
NATURAL SYSTEMS & HERITAGE ANALYSIS

Drawing No. LSP 14
 Prepared for The Department of Sustainability and Environment by
 Land Design Partnership Pty Ltd and Team
 September 2005





Landscape / Visual Character:

ROCKBANK RURAL FRINGE

As with Planning Unit 1 the creek typically runs through open rural landscape, with sparse trees.

Upstream of Beattys Road the terrain is generally flat to gently undulating footslopes immediately adjacent to the creek, merging into a broader basalt plain. Since the terrain is typically footslopes, the creek itself is generally less incised than in Planning Unit 1, but still has steep banks, and therefore remains part of sight, except where the creek is covered. Views from these vantage points are therefore important in exposing the character of the creek.

Downstream of Beattys Road, the typical terrain changes slightly, emerging from a footslopes condition to run through a basalt plain characterised by gently undulating terrain, with a noticeably rocky surface (boulders). The terrain also features localised areas of poor drainage, appearing as seasonal wetlands.

In some areas, the creek itself has a "wetland" character (such as at Lakes Road), creating some visual diversity and interest. Banks are higher on the western side, with a broader footslope to the east. Visually, this exposes the eastern bank, such as at the Melton highway crossing of the creek.

The character within the creek itself is less enclosed than upstream areas. Trees, when they are present, within the creek banks add visual diversity as do occasional built elements such as the bridge remnants at Beattys Road. The location of trees mainly within the creek channel, means that any remnant stands away from the creek (such as Lakes Road Rockbank) have a particular visual significance.



SECTION AA
Rockbank from Beattys Road



SECTION BB
Historic Streamside Property

LEGEND

	incised creek course		railway line		key regional attractions / destinations 2008
	Rockbank Wetland		significant vehicular creek crossing points		key regional attractions / destinations
	roadbank as wetland		existing transmission line alignments		significant regional sites

KOROROIT CREEK STRATEGIC PLAN 2005-2030

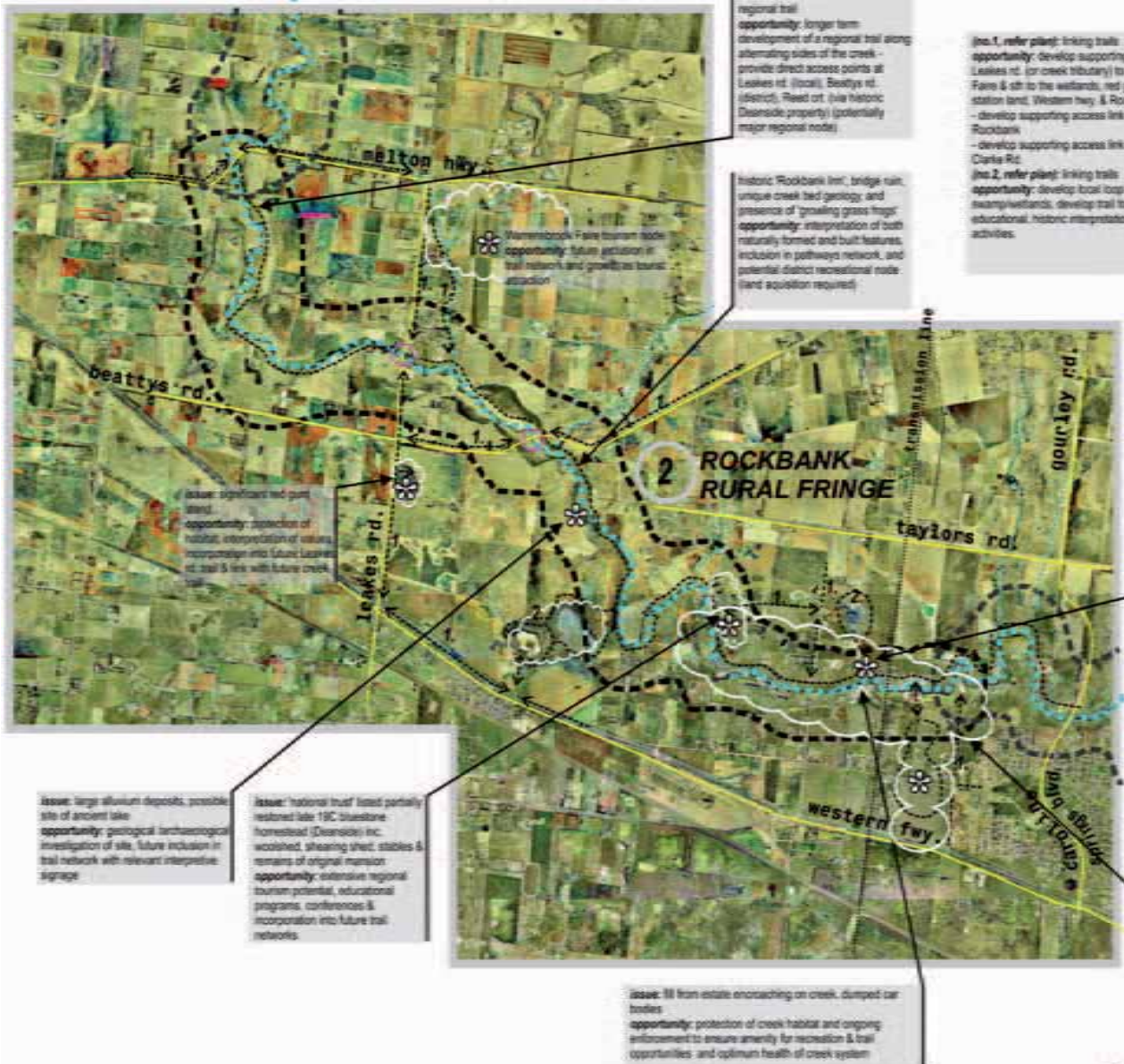
Reach No. 2 (Rockbank Rural Fringe)

LANDSCAPE CHARACTER ANALYSIS

Drawing No. LSP 08

Prepared for The Department of Sustainability and Environment by
Land Design Partnership Pty Ltd and Team
September 2005





regional trail opportunity: longer term development of a regional trail along alternating sides of the creek - provide direct access points at Leakes rd. (local), Beattys rd. (district), Reed crt. (via historic Dianside property) (potentially major regional node)

historic 'Rockbank Inn', bridge ruin, unique creek bed geology, and presence of 'gnawing grass frogs' opportunity: interpretation of both naturally formed and built features, inclusion in pathways network, and potential district recreational node (land acquisition required)

(no.1, refer plan): linking trails opportunity: develop supporting access links rth. along Leakes rd. (on creek tributary) to & from Illanesbrook Farm & stn to the wetlands, red gum forest in the Signals station land, Western Hwy. & Rockbank township - develop supporting access link directly rth. to Rockbank - develop supporting access link rth. along Strickens & Clarke Rd.

(no.2, refer plan): linking trails opportunity: develop local loop links to adjoining swamps/wetlands, develop trail for recreational, educational, historic interpretation & conservation activities.

issue: significant red gum stand
opportunity: protection of habitat, interpretation of values, incorporation into future Leakes rd. trail & link with future creek trail

issue: large alluvium deposits, possible site of ancient lake
opportunity: geological/archaeological investigation of site, future inclusion in trail network with relevant interpretive signage

issue: 'national trust' listed partially restored late 19C limestone homestead (Dianside) inc. woolshed, shearing shed, stables & remains of original mansion
opportunity: extensive regional tourism potential, educational programs, conferences & incorporation into future trail networks

issue: fill from estate encroaching on creek, dumped car bodies
opportunity: protection of creek habitat and ongoing enforcement to ensure amenity for recreation & trail opportunities - and optimum health of creek system

issue: significant basalt rock outcrop
opportunity: minor nodal point along trail

issue: - area of investigation for regional park ('parks etc.)
opportunity: protection of habitat, interpretation and inclusion in trail network - develop for recreation & conservation activities

issue: loop trail
opportunity: develop loop trails within regional park recreation, education, historic interpretation & conservation activities.

- ### Key strategic issues/opportunities for parkland & trail provision
1. physical conditions mean that there is opportunity for long term trail access along both or either sides of the creek.
 2. the main constraint to trail development is private ownership of the land adjoining the creek.
 3. the planning scheme may present an opportunity for the reservation of land along the creek for long term trail development.
 4. negotiations should be undertaken with owners to determine the feasibility of continuous linked access.
 5. the incised nature of the creek raises the issue of whether any future trail should be within the creek or on the plain, above the bank.
 6. land ownership and restriction on residential development means provision of recreation sites in the future will be minimal, thereby focusing recreation on the linear experience of the creek.
 7. encourage restoration & development of Dianside as a major regional recreation activity node; seek to link to the new regional park.
 8. take action to provide trail loops to local swamps & wetlands, encouraging local environmental awareness & education.
 9. Parks Victoria have strategic plans for a park to the west of Caroline Springs. The regional park and creek trail should be integrated.
 10. the definition of the Urban Growth Boundary of Caroline Springs will provide a regional recreational character rather than a local commuter character.
 11. the physical and cultural features in this unit presents the opportunity for access to a range of interest points.

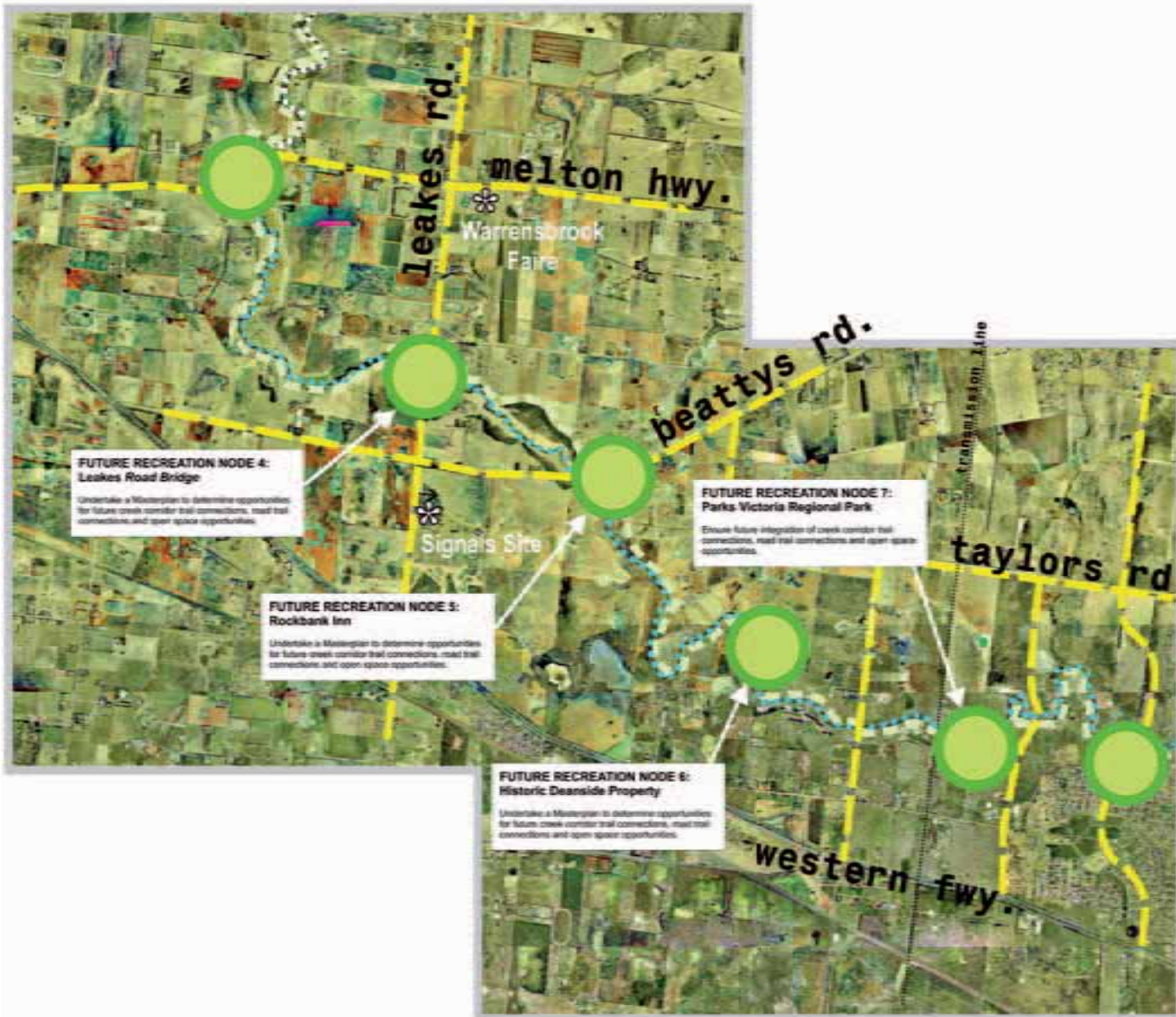
LEGEND

forest creek course	railway line	utility transmission line alignment	utility transmission line alignment
forest in situ areas	significant vehicular creek crossing points	key regional attractions / destinations	key regional attractions / destinations zone
road/paths in reserve	proposed future trail alignments	key regional nodes / destinations	open space/landfill



KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 2 (Rockbank Rural Fringe)
LINEAR PARKLAND & TRAIL ISSUES AND OPPORTUNITIES
 Drawing No. LSP 02
 Prepared for The Department of Infrastructure by
 LandDesign Partnership Pty Ltd and Team
 September 2005





LEGEND

-  Existing Creek Alignment
-  Proposed Future Linear Trail Alignment
-  Proposed Secondary Trail Links
-  Potential Future Recreation Nodes, comprising:
 - * Access to the Creek Corridor and the future linear shared trail system
 - * Public Open Space development
 - * Car parking areas; and
 - * Visitor Amenities.



KOROROIT CREEK STRATEGIC PLAN 2005-2030
Reach No. 2 (Rockbank Rural)
PROPOSED SHARED TRAIL and LINEAR PARKLAND
Drawing No. LST 02
Prepared for The Department of Sustainability & Environment by
Land Design Partnership Pty Ltd and Team
September 2005



2.3 Reach Three – Caroline Springs New Residential

The Caroline Springs New Residential Reach runs from the Clarke Road / Monaghans Lane ford, approximately 2.5 kilometres east to the municipal boundary between the Shire of Melton and the City of Brimbank. It is characterised by a deeply incised creek corridor with scattered, mature River Red Gums.

Delfin Lend Lease are responsible for the construction of new sediment ponds, shared trails and revegetation works that are currently taking place along the creek corridor on the south side, adjacent to the new housing.

Some areas of the creek corridor have been filled as part of adjacent housing construction, resulting in relatively significant modification of the creek profile.

A new education campus, retirement village and 'town centre' is planned for the northern side of the creek, as well as a new lake and open space areas.

The Urban Growth Boundary, as identified in Melbourne 2030, is located on the boundary of this reach and the Rockbank Rural Reach.

Biodiversity

Prior to European settlement the creek line would have been dominated by Creekline Grassy Woodland surrounded by Plains Grassland. Although some moderate terrestrial and high instream values persist, the area has seen recent residential development that is threatening the flora and fauna values.

In Melbourne Water's Kororoit Creek Waterway Management Activity Plan (Melbourne Water, 1998), this section of the creek was described as "retaining its natural stream values including spectacular rock escarpments, deep pools, indigenous in-stream vegetation and natural stream form". However, this reach of the creek has degraded significantly since that assessment.

Flora and Fauna Values

- Scattered, regionally-significant old-growth Red Gums (*Eucalyptus camaldulensis*)
- Isolated remnants of endangered Creekline Grassy Woodland following Kororoit Creek
- Locally to regionally-significant rock escarpments and associated vegetation
- State-significant instream vegetation
- Nationally-significant Matted Flax-lily (*Dianella amoena*)

- State significant Rye Beetle-grass (*Tripogon loliiformis*)
- Potential faunal habitat for the:
 - Growling Grass Frog (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act) – instream values / deep pools
 - Striped Legless Lizard (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act 1988) – grassland areas/ rocky outcrops.

Key Threats / Issues

- Although the boundary of the residential development is a reasonable distance from the creek, greatly increased sedimentation and siltation resulting in high turbidity and hard rubbish from construction sites entering the creek has resulted in serious degradation
- Terrestrial activities which may negatively impact water quality
- Weed invasion – see Appendix C

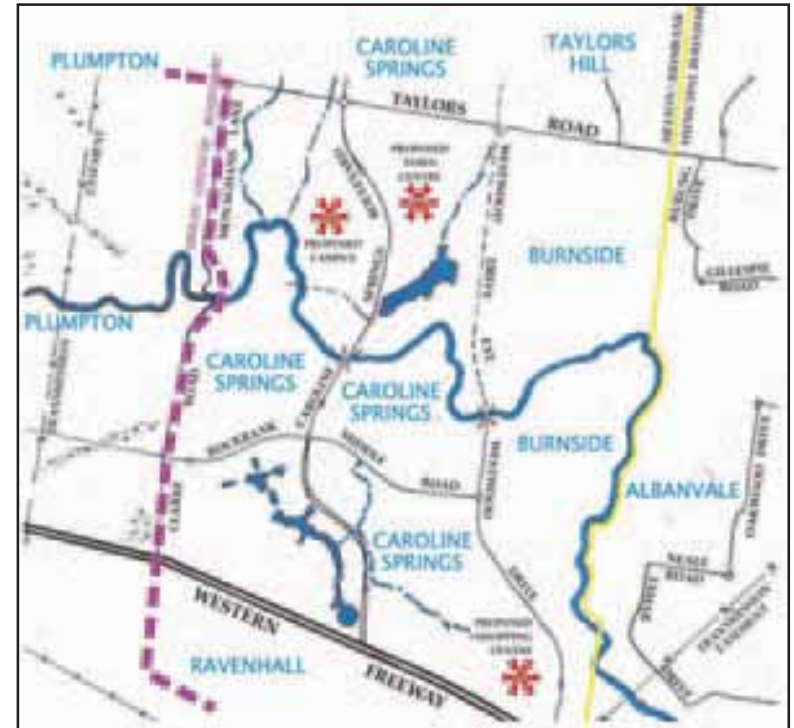


Figure 24: Remnant vegetation at Bullum Bullum Reserve

Bullum Bullum Aboriginal place

Bullum Bullum Aboriginal place is an irregularly shaped, eight hectare grassland site bounded by residential development to the north, south and west, and Kororoit Creek and parkland to the east. Although rich in Aboriginal cultural heritage values, Bullum Bullum Aboriginal place also contains significant flora and fauna values. Most of the landscape carries Plains Grassland with rocky escarpment and riparian vegetation along Kororoit Creek.

Since Melton Shire Council volunteered to manage the site, the reserve has improved dramatically after years of neglect. It recently won two awards from Keep Australia Beautiful, and the Shire recently won the Victorian Landcare Award – partly for its work on the site.

Aboriginal Affairs Victoria funded a detailed study of Bullum Bullum in 2000. A comprehensive Conservation Management Plan resulted, the aim of which was to concisely outline the management issues, options and recommendations for the site (Context Pty Ltd 2000). When considering future development and management of this site this document should be consulted.

One plant species of National significance has been recorded for the site – Arching Flax-lily (*Dianella* sp. aff. *Longifolia* (Benambra)). One species of State significance is present on the site and is listed under the FFG Act and the EPBC Act – *Pimelea spinescens* subs. *spinescens*.

The Striped Legless Lizard has been recorded at Bullum Bullum Reserve as recently as 1992 (DSE 2003a). As mentioned previously, this species is listed as vulnerable (EPBC Act), endangered (DSE 2003b) and listed under the FFG Act

It is recommended an evaluation of the current status of the rare and threatened taxa recorded in this reserve be undertaken to inform future management for this site.

The land managers should continue to work in partnership with the Wurundjeri in all aspects relating to this reserve.



Figure 25: Creek Corridor Landscape, west of Caroline Springs

Landscape Character

As it flows through the rapidly developing residential area of Caroline Springs, the creek runs through a flat to gently undulating basalt plain, typical of the western plains of Melbourne. The creek corridor itself is quite incised into this plain, but is located in a relatively broad valley, so it can be viewed from the top of the bank.

With increasing residential development, this landscape character is in a state of change, so that the creek channel and reserved open space adjacent to it will be the only references.

For this reason, broader references to the original landscape, such as views across the plains to the north, and the rolling character of the banks within the relatively broad valley, should be retained wherever possible in the design of new development.

Visual Features

Visual features in this reach are presently limited to the creek corridor as the development of Caroline Springs continues.

Some of the key visual features that are worth maintaining or enhancing in this reach are:

- Views from the new road bridge at Caroline Springs Boulevard and from the ford at Clarke Road.
- Views of ancient River Red Gums from the fringes of (and beyond) the creek corridor.
- Long views from the top of the creek banks, particularly over rural land to the north-west.



Figure 26: Significant Rock Escarpments west of Caroline Springs

Open Space and Trails

Existing Shared Trails

There were no shared trails constructed at the time of investigating this reach, although there were sections of trail due to commence as part of the ongoing development of the new residential areas along the creek corridor.

Opportunities for Shared Trails

- An extensive trail network has been proposed by the developers of Caroline Springs and planning has been carried out. The trails along the creek corridor are expected to function as major recreation and commuter routes through the suburb and to link with other feeder trails that have also been planned and are included in the Melton Shire Open Space Strategy (Stratcorp, December 2002).
- Linking People and Spaces identifies a long-term action to link the Kororoit Creek Trail to the Melton Highway. A possible route has been identified between Monaghans Lane and Gourlay Road. A more detailed feasibility and design study is required to determine the exact route.
- Proposed feeder trails could be developed in the following locations:
 - an on-road route along Westwood Drive from the Western Highway north to Taylors Road and eventually to Hillside;
 - off-road routes along local landscaped drainage lines between the Highway and the Creek Corridor; and
 - off-road routes along significant local creeks running into Kororoit Creek from the north.

The latter link is significant as it will provide access to and from the creek corridor and Lake Caroline. This and other on and off-road links will be made to Caroline Springs Village and the retail hub immediately to the north of the lake, and to a school and playgrounds.

- Linkages along the Kororoit Creek Trail and secondary trail connections to the new Regional Park west of Caroline Springs.
- Local opportunities exist for the development of further feeder trails to the creek corridor through the Burnside area. These could be designed to connect with the natural drainage line along Watervale Boulevard and to Gibson College.

Shared Use Trail Issues

- Melton Shire has indicated that conservation reserves are proposed to the south of the creek corridor. Trail siting through these areas will need to be very carefully planned and controlled and may be subject to conservation and access controls. The immediate area to the east of this locale and of the creek corridor is occupied by Isabella Williams Memorial Reserve. This site has been totally cleared and is flat open, mown grassland. As such, it conflicts with the conservation focus of the land to its immediate west;
- Private land development;
- Environmental and heritage significance in Bullum Bullum Reserve; and
- Proposed reserves north and south of the creek in Burnside.

Existing Open Space

Open space along the creek corridor within this reach has been newly created and is mainly confined to the width of the creek corridor. Revegetation works, new stormwater treatment ponds and recent shared use trail construction has emerged as the new residential areas of Caroline Springs and Burnside have developed.

Open Space Opportunities

Much of the future planning and subdivision of Caroline Springs and Burnside is currently in place and in many cases, currently under construction. There are limited opportunities to increase open space provision above that already allowed.

There are opportunities for minor open space nodes or viewing opportunities from bridges at Caroline Springs Boulevard and Westwood Drive.

Open Space Issues

- Conservation, flood and heritage management requirements can be expected in future open space areas and conservation zones. Action must be taken to constrain over-development, and the pushing of development fill on to the immediate creek environs.
- Greater care must be taken in the protection of the creek corridor and habitat during the residential development process. Care must also be taken to constrain the extent of 'development' of the creek corridor environs, as this threatens natural ecosystems along the creek corridor. Substantive housing set-backs must be provided to help ensure this outcome.
- The incised nature of the creek corridor through sections of Caroline Springs restricts its direct use, as does the narrow nature of the creek corridor reaches. These constraints, however, are likely to strengthen the capacity to protect the stream habitat.

Reach Three Actions

Reach Three – Caroline Springs New Residential (CS)		Lead Agency	Priority
CS1	Undertake works as identified in the Waterway Management Activity Plan to construct perched wetlands and enhance natural pools along the Caroline Springs frontage on the south side of the stream	Melbourne Water	High
CS2	Plan for Koroit Creek trail connections: <ul style="list-style-type: none"> • with an on-road trail route along Westwood Drive from the Western Highway, north to Taylors Road and to Hillside and linking with the creek corridor where it crosses Koroit Creek; • with off-road shared trail routes along local drainage lines between the Western Highway and the creek corridor and from the north to the creek corridor; • with shared trail routes from the main shared trail to future schools on the northern side of the creek corridor. 	Melton Shire	High
CS3	Close a gap in the Koroit Trail (MTN) by creating a new section of shared use trail along the creek connecting Rockbank Middle Road to Westwood Drive.	Melton Shire Parks Victoria	High
CS4	Plan the integration of the Koroit Creek Trail with other trails proposed as part of the Melton Shire Open Space and Trail Strategy. This would include providing links along: <ul style="list-style-type: none"> • Westwood Drive, including future extensions; and • Caroline Springs Boulevard. 	Melton Shire	High
CS5	Assess whether the Rockland Middle Road Farm ruins warrant protection through the Heritage Overlay.	Melton Shire	Medium
CS6	Establish the Caroline Springs Boulevard bridge area and the Westwood Drive bridge as future linear open space nodes as part of the planned trail	Melton Shire	Medium
CS7	Enhance the views into the creek corridor from the Caroline Springs Boulevard through appropriate design treatments.	Melton Shire	Low

2.4 Reach Four – Deer Park Residential

The Deer Park Residential Reach runs from the municipal boundary between the Shire of Melton and the City of Brimbank, approximately four kilometres south-east to Station Road in Deer Park. It is characterised by a deeply incised creek corridor with limited remnant indigenous vegetation and steep rock escarpments in some places.

A relatively generous creek corridor of up to 100 metres wide prevails through this established residential area with areas of lawn, parkland trees and existing shared trails.

There are no road crossings of the creek corridor within this reach, apart from Station Road, at the border between Deer Park and Cairnlea.

There are three footbridges located within the reach, as part of the existing shared trail loop, between Station Road and Billingham Road. There is no formal shared trail north of Billingham Road.

Secondary Schools located within a kilometre of the creek corridor are:

- Deer Park Secondary College; and
- St. Peter Chanel School;

Important community attractors located close to the creek corridor are:

- Brimbank Central Shopping Centre on Station Road;
- The Deer Park Regional Community Sports Complex; and
- The shopping centre at the corner of Station Road and the Western Highway.

Biodiversity

Prior to European settlement this reach of the creek would have been dominated by Riparian Woodland with some steep rocky escarpments, surrounded by Plains Grassland. It now carries very little of the pre-1750 terrestrial vegetation. The wide creek corridor runs through established residential areas, and is characterised by mown lawn and parkland trees. Some significant vegetation persists on scattered rocky escarpments but they are small and isolated. However, they do contain a number of significant plant species. There is a fenced native grassland area at Neale Road, adjacent to Isabella Williams Reserve.

Flora and Fauna Values

- Scattered, regionally-significant Red Gum (*Eucalyptus camaldulensis*)
- Locally to Regionally-significant rock escarpments and associated vegetation
- Regionally significant (endangered) Rock Correa (*Correa glabra*)
- State significant instream vegetation
- Nationally significant Small Scurf-pea (*Cullen parvum*) and Spiny Rice-flower (*Pimelea spinescens* ssp. *spinescens*)
- State significant Tough Scurf-Pea (*Cullen tenax*) and Slender Tick-foil (*Desmodium varians*)
- Endangered Plains Grassland remnant (Bullum Bullum) (listed under the FFG Act)
- Potential faunal habitat for the:
 - Growling Grass Frog (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act) – instream values / deep pools
 - Striped Legless Lizard (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act) – grassland areas / rocky outcrops
 - Great Egret (Vulnerable – DSE 2003, listed under the FFG Act) – aquatic / riparian areas, important for foraging habitat
 - Brown Quail (Near Threatened – DSE 2003, listed under the FFG Act) – grassland areas near water bodies
 - Nankeen Night Heron (Near Threatened – DSE 2003) – riparian habitat
 - Whiskered Tern (Near Threatened – DSE 2003) – wetland areas

associated with Deanside / Clarke Road reserve.

Key Threats / Issues

- Weed invasion – see Appendix C
- Loss of fauna habitat due to modifications to stream morphology
- Poor water quality with negative impacts to instream flora and fauna values
- Future residential development may impact on flora and fauna values.

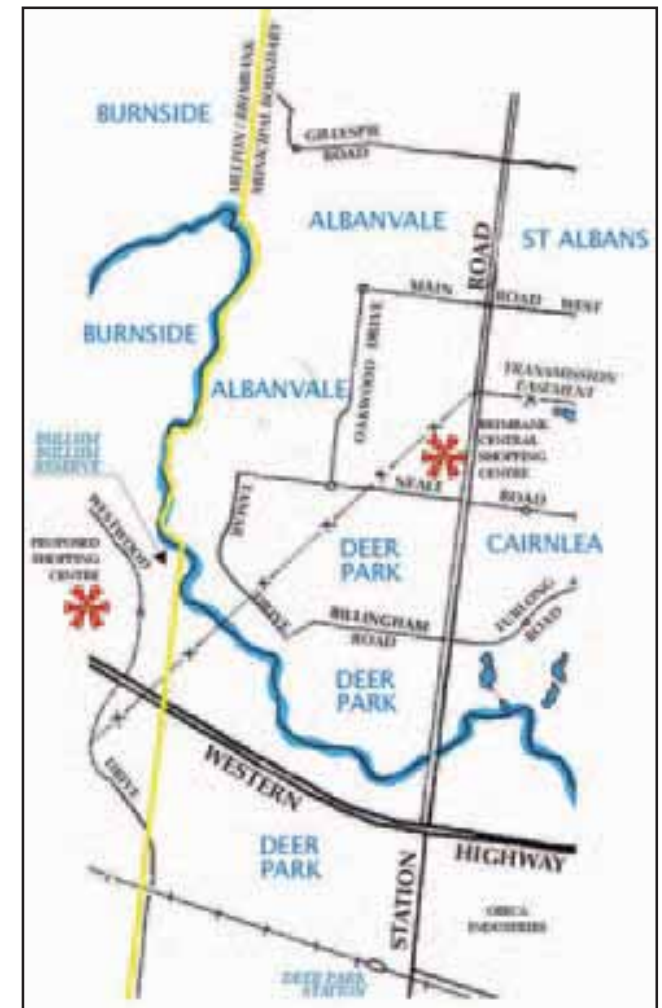


Figure 27: Dense Aquatic Vegetation along Creek Corridor in Deer park

Landscape Character

There are some elements that elevate the character of the area in a visual sense. For instance, areas previously characterised by open mown grass, have been improved in recent years through revegetation of both the creek edge and the banks. The construction of a shared trail between Billingham Drive and Station Road allows local residents to experience this revegetation. The spatial character of this section of the creek corridor is also elevated by the fact that Millbank Drive residences face, rather than back onto the creek corridor – a relatively rare feature in a subdivision of this vintage.

Upstream of the transmission easement, the typically suburban character of the creek corridor changes somewhat due to the recent Caroline Springs development on the western bank. In this stretch, while the creek corridor is quite deeply incised, the character is generally more open, due to the additional open space to the west.

The character of some other parts of the creek corridor in this reach is similar to many urban creeks around Melbourne – a relatively narrow corridor defined close to the top of the creek banks by the rear paling fences of adjoining residential development.



Figure 28: Deep Pool in Deer Park

Visual Features

Visual features in this reach are confined to the creek corridor because of the established residential areas that line the creek on both sides.

Some of the key visual features that are worth maintaining or enhancing in this reach are:

- Views from footbridges near Billingham Road and Miles Street.
- Views from Station Road.
- Views of the Bullum Bullum Reserve.
- Views of rock escarpments.
- Views down into the creek corridor from Millbank Drive.
- Views of significant River Red Gums.
- Views along Rockbank Middle Road Reserve and the transmission easement to the creek corridor valley.
- Long northerly views, obtained from the Isabella Williams Memorial Reserve, on Opie Road

Open Space and Trails

Existing Shared Use Trails

Concrete shared trails exist in Deer Park in managed creek corridor parklands upstream from Station Road to an existing footbridge connecting Davitt Drive with Billingham Road. There are trails on both sides of the creek along this stretch of the reach. These trails are also accessed from several nearby streets. Another footbridge is located at the northern end of Miles Street.

Opportunities for Shared Trail Development

- Completion of the Kororoit Creek Trail (MTN), connecting the Davitt Drive footbridge to Isabella Williams Memorial Reserve.
- A footbridge connection across Kororoit Creek at Isabella Williams Memorial Reserve.
- Safe connection across Station Road into Cairnlea.



Figure 29: Typical Creek Corridor Landscape in Deer Park

Opportunities also exist for a series of secondary related trails in this reach that connect to the Kororoit Creek Trail and provide access to other recreation reserves, schools, shopping centres and community facilities. These could be as follows:

- The road reserve for the extension of Rockbank Middle Road which runs almost due east from the Creek Corridor just north of Isabella Williams Reserve in Albanvale.
- The powerline easement running from Robinsons Road in the south-west of the reach to Station Street in the north-east. From Station Street, the easement runs due east to the Gladstone Street Wetlands at the head of Jones Creek and the extensive native grasslands reserve associated with the Victoria University Iramoo Sustainable Living Centre.
- The Station Street median reserve running north to Robert Bruce Reserve and Cairnlea Drive.
- Connections to the Deer Park shops on the south side of the Western Highway and to the Hunt Club and Community Centre further west along the Western Highway.

These reserve and trail opportunities would support a series of short and longer trail loops that could be used for recreational, educational and habitat purposes. The Victoria University site, in particular, provides for a wide range of conservation, heritage, research and educational activities. It is also operated in a way that seeks and supports active community involvement.

Shared Use Trail Issues

- Narrow width of the creek corridor in some areas upstream from the Davitt Drive footbridge.
- Steep topography in some areas upstream from the Davitt Drive footbridge.
- Improve access signage to the Kororoit Creek Trail.



Figure 30: “Goat Tracks” alongside Creek Course west of Billingham Road in Deer Park

Existing Open Space

- Bullum Bullum Reserve is an important conservation area, set aside adjacent to the creek corridor. It is also an important Aboriginal site.
- Isabella Williams Memorial Reserve. The reserve is relatively undeveloped for recreation purposes with limited parking, shelter and other park facilities. The reserve contains remnant grassland currently being managed to protect conservation values.
- Davitt Drive Reserve. The reserve is well located along Davitt Drive and close to the footbridge connecting across to Billingham Road. The reserve contains a small playground.
- Burnside Park is also well located providing the only direct access in this reach to the creek corridor from the Western Highway. The reserve is well elevated above the creek and provides good views both upstream and downstream.
- Millbank Drive is a generous grassed reserve located on the south side of Millbank Drive, just west of Station Road. It contains scattered native trees and a concrete shared trail.

Opportunities for Open Space

There are limited opportunities for the creation of new open space within this reach.

However, there are good opportunities for enhancing existing reserves, particularly Isabella Williams Reserve and Burnside Park. Both of these reserves have great potential to act as recreation nodes within the wider context of the Kororoit Creek linear parkland and trail system.

Open Space Issues

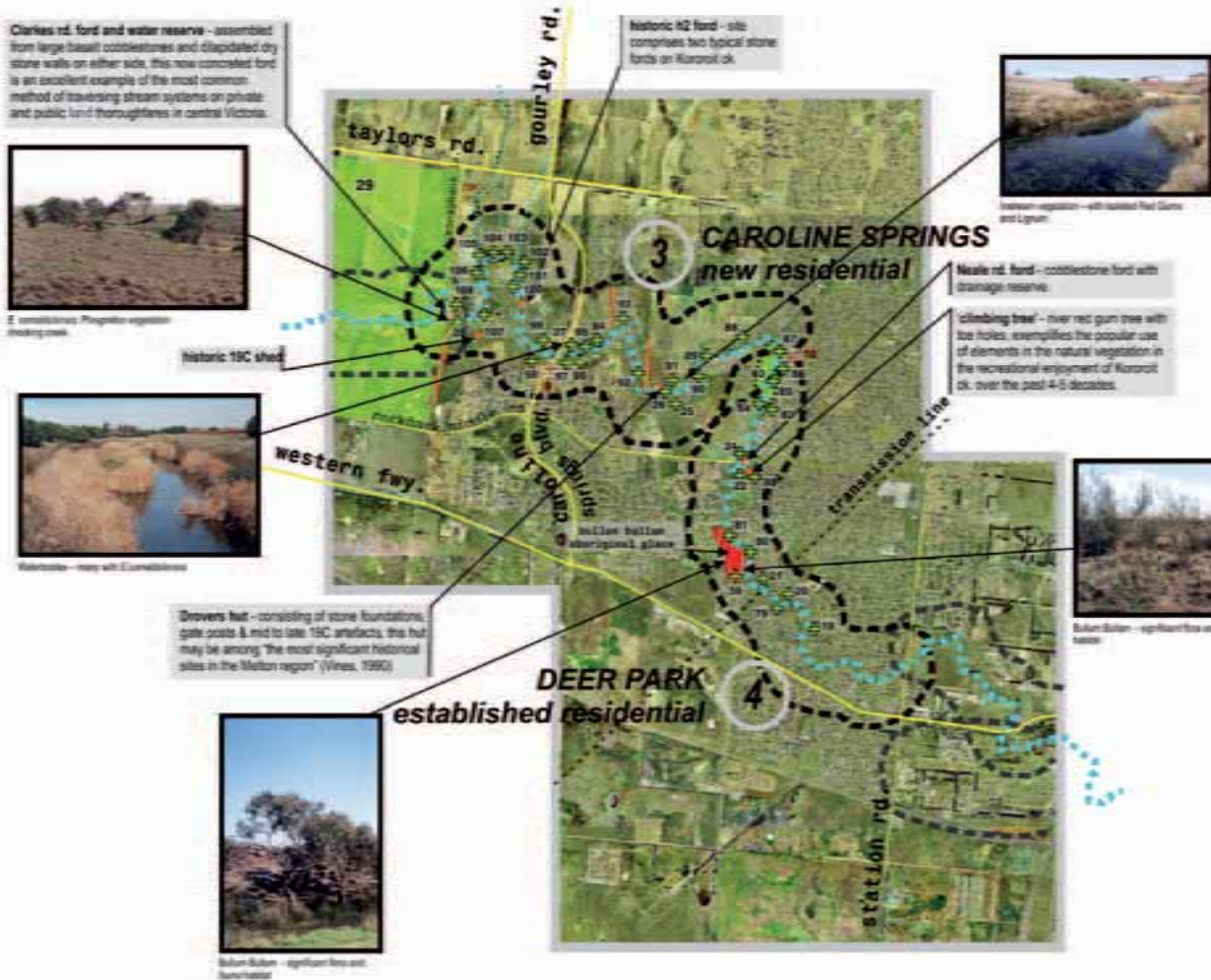
- Car parking capacity associated with possible future improvements to existing reserves within the reach.
- Greater pressure on existing open space areas within the Deer Park reach with the recent emergence of new residential areas in Cairnlea to the east and Burnside to the west.



Figure 31: Rock Escarpments and Drain Outlet in Deer Park

Reach Four Actions

Reach Four – Deer Park Residential (DP)		Lead Agency	Priority
DP1	Undertake projects, as identified in the Melbourne Water Waterway Management Activity Plan covering its reaches part 9 and 11 and whole of 10 and as specified in works package 1. Works include: investigation and design of re-set of riffle structures throughout to address fish barriers, ensure more appropriate sizing of rock, enhance pools and re-profile banks, ensure discouragement of informal crossing, and bank and aquatic revegetation; investigation of abandonment of maintenance access track at certain points to permit possibility of re-engagement of escarpments with stream at extended pools; redesign of outlet of Billingham Road Drain to dissipate energy; investigation of stormwater treatment of Cherry's Diversion Drain within Burnside Park; and preparation of a vegetation management plan for Melbourne Water owned land throughout including sites where Melbourne Water has undertaken past terrestrial revegetation on Council land.	Melbourne Water	High
DP2	Undertake projects, as identified in the Melbourne Water Waterway Management Activity Plan covering Council activities, especially: investigation of and installation of litter traps at or near source in the catchment of the Council drain outfalling at Billingham Road; and development of a lookout point along the future shared trail on top of the escarpment near Abercairn Court opposite Warrington Crescent.	Brimbank City Council	High to Medium
DP3	Assess whether the Bullum Bullum Reserve warrants protection through the Heritage Overlay	Melton Shire Council	Medium
DP4	Construct a shared trail along the western side of Kororoit Creek, connecting Davitt Drive to Rockbank Middle Road as part of the Kororoit Creek Trail (MTN).	Brimbank City Council Parks Victoria	High
DP5	Construct the following footbridges: <ul style="list-style-type: none"> • To connect Isabella Williams Reserve to the reserve opposite the creek corridor in the Burnside residential area, subject to the extension of Rockbank Middle Road. • In between Opie Road and Bullum Bullum Reserve. 	Brimbank City Council Melton Shire Council	
DP6	Establish Isabella Williams and Burnside Park as future recreation nodes along the planned Kororoit Creek Trail. This would include: connections into the creek corridor and the future linear shared trail system; open space development; car parking; and visitor amenities.	Brimbank City Council	
DP7	Plan for Kororoit Creek Trail connections to: <ul style="list-style-type: none"> • the Deer Park Secondary College (through the transmission line easement and Billingham Road); • the Brimbank Central Shopping Centre 	Brimbank City Council	Medium
DP8	Upgrade the path between Davitt Drive and Station Road to Austroad (Part 14) Guide to Traffic Engineering Bicycles.	Brimbank City Council	



Waterway summary

Planning Unit 3 Caroline Springs New Residential

Stream Character - Confined single channel with steep banks, low streamly, poorly vegetated

Water Quality Issues - Limited water quality impacts documented. Some anecdotal data relating to chemical application within these areas requiring confirmation

Water Quantity Issues - Altered hydrology due to developments is addressed via the MWC Land Development Manual, and planning referrals to MWC via LGAs

Stream Management Issues - Stream frontage management needs to be carefully managed to ensure environmental values are maintained and enhanced where possible.

Planning Unit 4 Deer Park Residential

Stream Character - Confined single channel with steep banks, low streamly, partly vegetated

Water Quality Issues - Limited water quality impact from established residential areas - majority of issues within this area will be addressed through Stormwater Management Plan initiatives.

Water Quantity Issues - Existing residential area is not considered to adversely affect water quantity issues in this area

Stream Management Issues - Stream health could be enhanced with further establishment/enhancement of riparian zone.

KEY - ecologically significant sites/zones

Site	Sec.	Description
19	4	Conservation Zone / significant flora
20	4	Rocky escarpment
21	4	Conservation Zone / significant flora
22	4	Steep cliff, exposed rocks (no room for bike track) - Neale Road grassland
23	4	Stone bridge
24	4	Old growth Eucalyptus camaldulensis, good quality in-stream aquatic vegetation, Typha, Myriophyllum, Lignum on creek beds
25	3	Scattered Eucalyptus camaldulensis and Lignum - stream vegetation. Deep pools, stone terraces and walls
26	3	Instream vegetation - with isolated Red Gums and Lignum.
27	3	Waterbodies - many with E. camaldulensis
28	3	E. camaldulensis, Phragmites vegetation choking creek, incised valley
25 (zone)	3	Clarke Road Grassland area - EVC Plains Grassland - Lignum wetland
39	4	Bullun Bullun - significant flora and fauna habitat
63	4	Groundwater pools
79	4	Remnant Blackwoods (stunted form)
80	4	Significant Rock Escarpment
81	4	Deep pools (Growing Grass Frog habitat)
82	4	Significant Red gums and rock outcrop - Neale Road grassland
83	4	Significant rock escarpment
84	4	Deep pools (Growing Grass Frog habitat)
85	4	Remnant Red gums
86	4	Significant rock escarpment
87	3	Remnant Red gums
88-91	3	Significant rock escarpments
92	3	Deep pools (Growing Grass Frog habitat)
93-97	3	Significant rock escarpments
98-99	3	Remnant existing indigenous vegetation
100	3	Deep pools (Growing Grass Frog habitat)
101	3	Remnant Red gums
102	3	Remnant existing indigenous vegetation
103	3	Significant rock escarpment
104	3	Remnant existing indigenous vegetation
105	3	Significant rock escarpment
106	3	Remnant Red gums
107	3	Remnant existing indigenous vegetation
108	3	Remnant indigenous willowedge edge vegetation

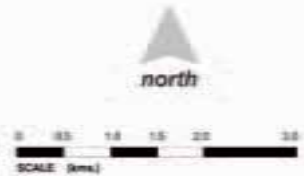
KEY - geomorphologically significant sites/zones

Site	Sec.	Description
9	3	Incised valley (Caroline Springs)
10	4	Groundwater pools

LEGEND

- Kororoit creek course
- Kororoit tributaries
- Waterage in habitat
- Highway lines
- existing transmission line alignments
- Natural site (geomorphological site with reference number)
- Ecological site (with reference number)
- Ecological zone (with reference number)

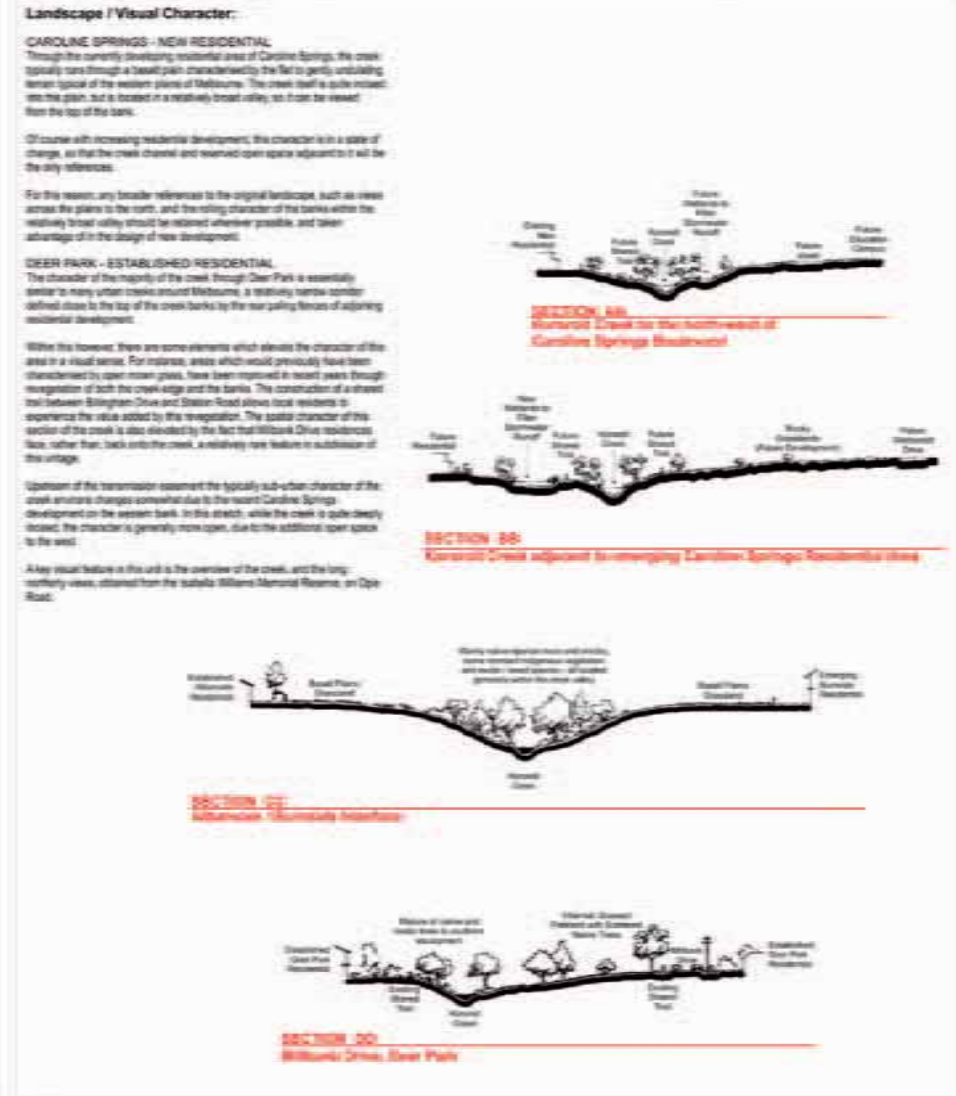
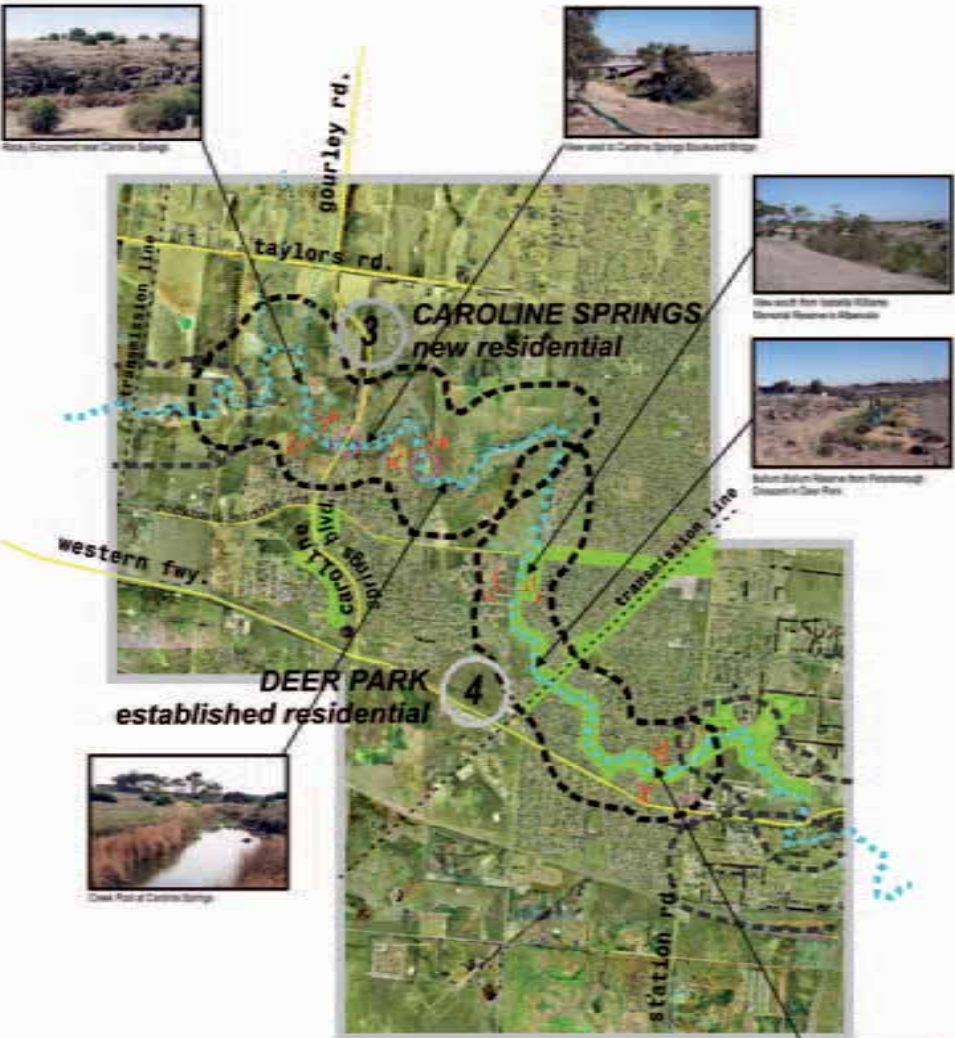
Note: Aboriginal cultural heritage places have been identified in the area covered by this map. For the most up to date information on the presence of Aboriginal cultural heritage places check the Cultural Resource Management Grid maps on Aboriginal Affairs Victoria's web site at <http://www1.dcv.vic.gov.au/sar>



KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reaches No. 3 (Caroline Springs New Residential) and No. 4 (Deer Park Established Residential)
NATURAL SYSTEMS & HERITAGE ANALYSIS
 Drawing No. LSP 15

Prepared for The Department of Sustainability and Environment by
 Land Design Partnership Pty Ltd and Team
 September 2005

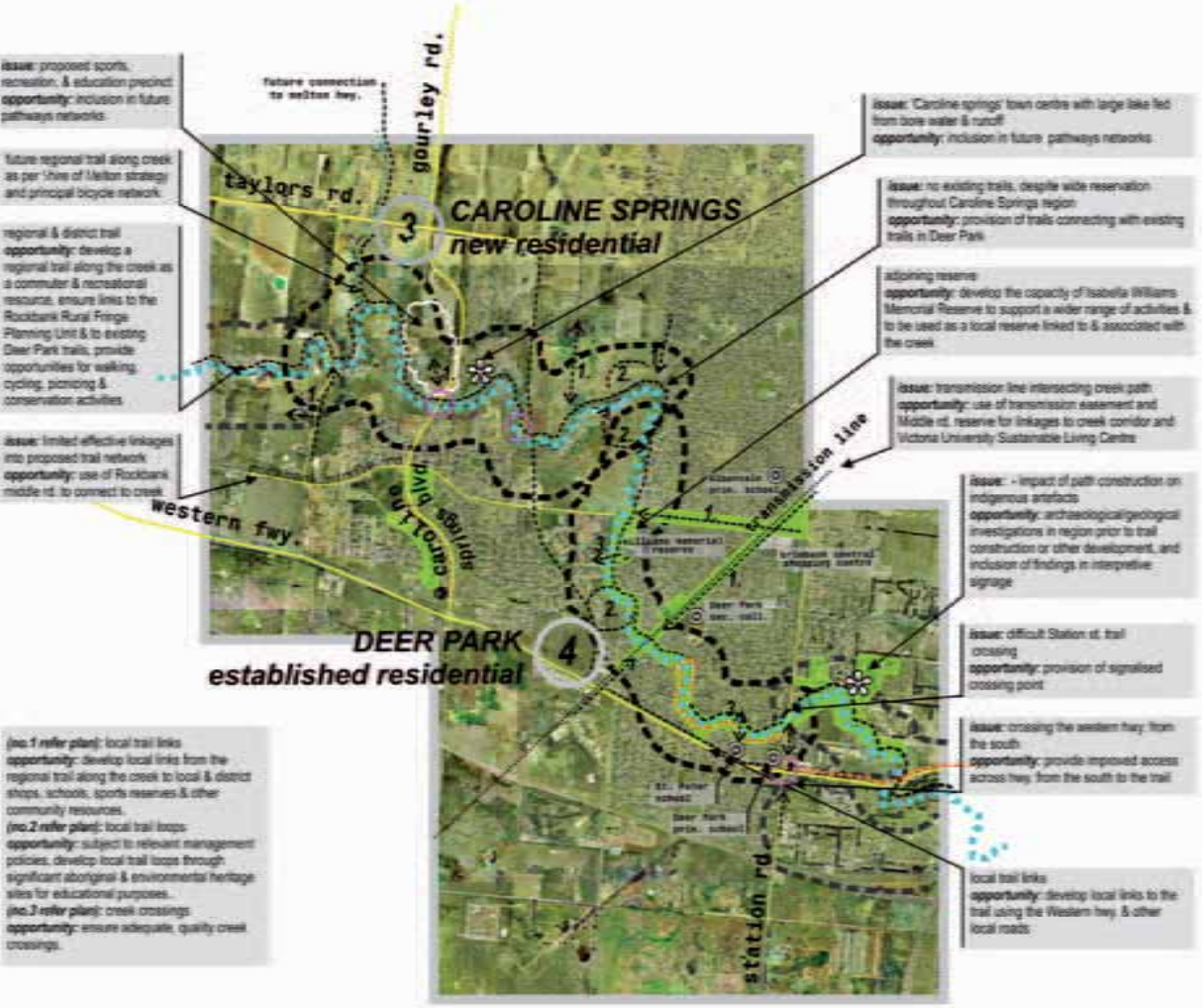




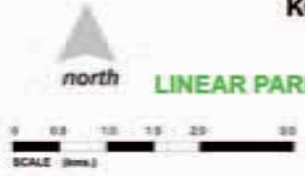
KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reaches No. 3 (Caroline Springs New Residential)
 and No. 4 (Deer Park Established Residential)
LANDSCAPE CHARACTER ANALYSIS
 Drawing No. LSP-09

Prepared for The Department of Sustainability and Environment by
 Land Design Partnership Pty Ltd and Team
 September 2006





- Key strategic issues/opportunities for parkland & trail provision**
1. the Kororoit ck. provides a key opportunity to link the Caroline Springs and Deer Park communities with the new regional park.
 2. within residential areas the creek has the potential to develop a strong commuter capacity, linking with on-road feeder trails.
 3. the development of the creek environs has the potential to constrain access and recreational use of the creek if carried out inappropriately (e.g. through excessive filling/encroachment).
 4. the provision of trails through Caroline Springs creates the opportunity to protect areas of sensitivity through appropriate siting.
 5. ensuring that spatial land visual diversity is not lost through inappropriate trail siting.
 6. the creek trail, proposed in Caroline Springs, and existing in Deer Park, provides the opportunity to link recreational sites that would otherwise be remote.

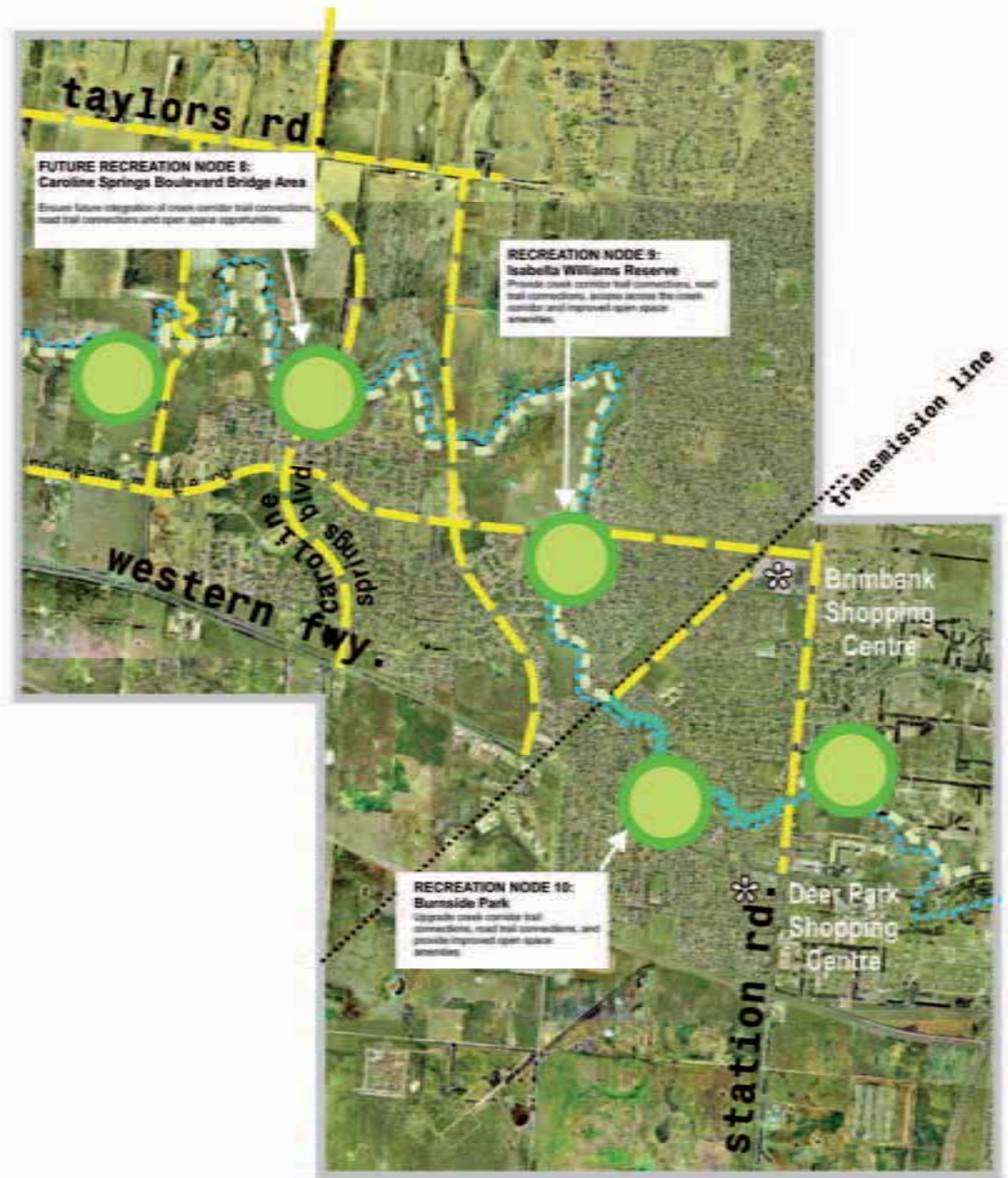


KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reaches No. 3 (Caroline Springs New Residential)
 and No. 4 (Deer Park Established Residential)
LINEAR PARKLAND & TRAIL ISSUES AND OPPORTUNITIES
 Drawing No. LSP 03
 Prepared for The Department of Sustainability and Environment by
 Land Design Partnership Pty Ltd and Team
 September 2005



LEGEND

-  Existing Creek Alignment
-  Proposed Future Linear Trail Alignment
-  Existing Lineal Trail
-  Existing and Proposed Secondary Trail Links
-  Proposed Recreation Nodes, comprising:
 - * Access to the Creek Corridor and the future linear shared trail system
 - * Public Open Space development
 - * Car parking areas; and
 - * Visitor Amenities.



KOROROIT CREEK STRATEGIC PLAN 2005-2030
Reaches No. 3 (Caroline Springs New Residential)
and No. 4 (Deer Park Established Residential)
PROPOSED SHARED TRAIL and LINEAR PARKLAND
Drawing No. LST 03
Prepared for The Department of Sustainability and Environment by
Land Design Partnership Pty Ltd and Team
September 2005



2.5 Reach Five – Cairnlea New Residential

The Cairnlea New Residential Reach runs from Station Road in Deer Park, approximately 1.5 kilometres south-east to the Deer Park Hotel, where the creek passes under the Western Highway. It is characterised by an incised creek corridor with limited remnant indigenous vegetation.

The Black Powder Mill is an important historic site located along the creek corridor in this reach. It is a small concrete structure, built in 1939, that was used to make gunpowder and is the last remaining example of its kind. These structures were common along the creek when the area manufactured explosives for World War II. The Black Powder Mill has recently been fully restored and is open for public viewing at selected times.

VicUrban are responsible for the construction of new sediment ponds, shared trails and revegetation works along the creek corridor, adjacent to the new housing development.

Some areas of the creek corridor have been filled as part of adjacent housing construction, resulting in relatively significant modification of the creek corridor profile.

A native grassland reserve has also been set aside for conservation purposes on the south side of the creek corridor.

Important community facilities close to the creek corridor are:

- Victoria University St.Alban Campus
- The Gladstone Street Wetlands
- The proposed shopping centre on Furlong Road.

A new bridge crossing (Creekview Drive) has been constructed as part of the new subdivision.



Biodiversity

Prior to European settlement this area would have carried Riparian Woodland dominated by River Red Gum along Korooroit Creek, surrounded by Plains Grassland (Oates and Taranto 2001). Remnant River Red Gum (*Eucalyptus camaldulensis*) persists along the creek margins. Unlike the creek downstream of this reach, the frequency of Red Gum increases upstream from this reach, and its protection is important from both an ecological and landscape perspective. Tangled Lignum (*Muehlenbeckia florulenta*), a species of regional significance, persists along the creek. This shrub also has faunal habitat values.

Along this reach, the surrounding area is zoned residential. However, development is now fairly well progressed. The Albion Explosives Factory Grasslands occur on the southern side of the creek. This has been classified as State significant for flora and Nationally significant for fauna (Muir et al. 1997).

Flora and Fauna Values

- Locally to regionally significant rock escarpments and associated vegetation.
- State-significant instream vegetation.
- Potential habitat for the Growling Grass Frog (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act) – in-stream values / deep pools
- Endangered Plains Grassland and Grassy Wetland EVC remnant on southern side of Creek. State significant Spurred Spear-grass (*Austrostipa gibbosa*), Corkscrew Spear-grass (*A. setacea*), Rye Beetle-grass (*Tripogon loliiformis*) and Feather-heads (*Ptilotus macrocephalus*) have been recorded for this site. The grassland provides potential fauna habitat for the Striped Legless Lizard (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act) – grassland areas / rocky outcrops
- Regionally significant Riparian Sedgeland.

Key Threats / Issues

- Loss of or further degradation of the grassland from future development, both residential and recreational on the southern side of the creek
- Weed invasion – see Appendix C
- Water quality issues arising from residential development.

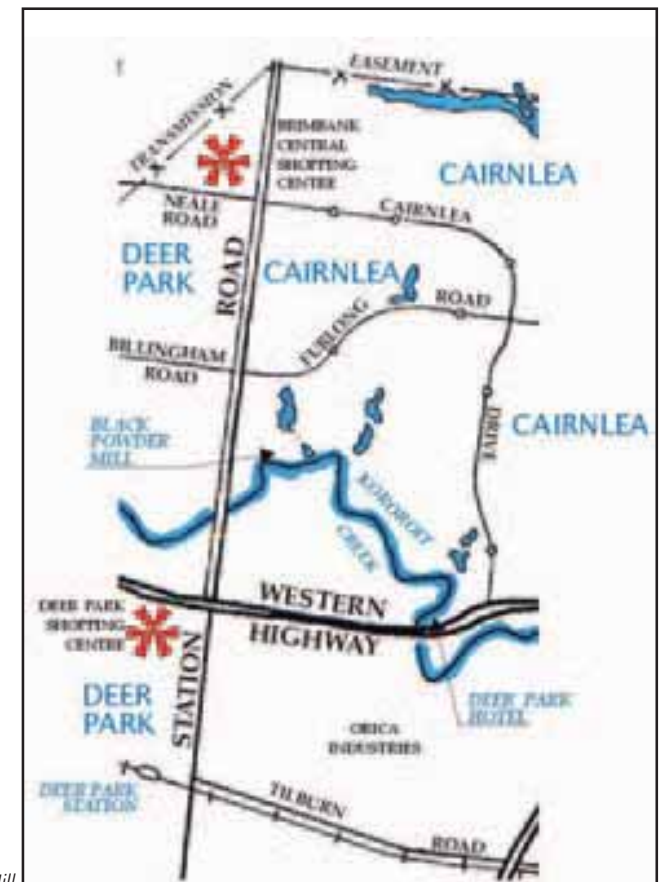


Figure 32: Old Red Gums and Deep Pools across from the Black Powder Mill

Landscape Character

While the Cairnlea residential development features a number of open space areas and types, particularly south of Furlong Road, the landscape character of the creek remains somewhat degraded. The creek is generally devoid of significant trees and is subject to sparse tree planting, in contrast to the more intense revegetation upstream through Deer Park.

The creek itself flows through a broad valley that is quite shallow in parts, and is visually and physically accessible. However, the current landscape character does not encourage interaction with, or investigation of, the creek environs. In some ways the character is more typical of a western plains rural landscape with rock floaters and thistles, than a coordinated open space system.

Visual Features

Visual features in this reach are presently limited to the creek corridor as the development of Cairnlea Estate continues. There are some historic elements, such as the Black Powder Mill.

Some of the key visual features that are worth maintaining or enhancing in this reach are:

- Views from the new bridge crossing (Creekview Drive).
- Views into the creek corridor from new adjacent streets.

Open Space and Trails

Existing Shared Trails

- Only a small section of gravel trail along Kororoit Creek has been developed in the Cairnlea Reach. This section is between Waterfield Park and Station Road, and allows connection to the existing trails along the creek to the Deer Park Reach.
- Another small section of trail is proposed in the area to the immediate rear of the Deer Park Hotel when development reaches that point. This will run north-east from the creek to Cairnlea Drive over a distance of around 500 metres.
- An on and off-road trail connects the small existing section of trail along Kororoit Creek, through Waterfield Park and along connecting residential streets to the major sporting fields planned on Furlong Road. This also provides connection to Cairnlea Lake and Jones Creek to the east.

Opportunities for Shared Trails

- Existing gravel trails could be upgraded to meet Ausroads Trail Standards.
- An opportunity exists to create a shared use trail along this length of the creek that connects Station Waters, Waterfield Park and the Black Powder Mill. This trail could also link to the native grassland reserve in the middle of the future development area north of BHP.
- Links could possibly be developed through industrial land on the south side of the creek corridor to existing netball and lawn bowling clubs on the northern side of the Western Highway.
- A combination of creek corridor and on-road bike trails could be created to link Station Waters / Waterfield Park to Glenbrook Waters and the Deer Park Hotel.
- A trail link could be developed from the creek corridor to the Cairnlea Neighbourhood Activity/Retail Centre at the corner of Furlong Road and Cairnlea Drive.

Shared Trails Issues

- A continuous shared trail has not been developed by Vic Urban along the creek corridor in this reach due to Aboriginal cultural values. Any future trail developed in this reach will need to be carefully sited to preserve these values.
- It is likely the layout of the residential subdivision in the Cairnlea Planning Unit will impose considerable constraints on recreation trail development along Kororoit Creek. This is essentially because house blocks have been laid out close to the creek, thereby restricting the land available for trails. As a consequence, no trail has been developed along the full length of the creek within Cairnlea and it would appear that this will be challenging in on the northern/north-eastern side of the creek.



Figure 33: Creekview Drive Bridge during Construction

Existing Open Space

- Relatively wide creek reserve from Station Road to the historic Black Powder Mill. This reserve contains a gravel shared trail, old River Red Gum trees and grassed areas.
- Station Waters – built as part of the new Cairnlea development and located a hundred metres from the creek corridor, the park consists of an artificial lake, barbeque and shelter areas as well as parking.
- Waterfield Park – also built as part of the new Cairnlea development and located a hundred metres from the creek corridor, the park consists of an artificial lake and informal parkland areas.

Opportunities for Open Space

Planning and design of the new Cairnlea subdivision has already taken place and much of the development has been completed. There are mainly opportunities for the improvement or enhancement of existing open space within the creek corridor. They are as follows:

- Further enhancement of Station Waters as a park node with improved trail connections to the Kororoit Creek Trail and improved park facilities.
- Further open space enhancement of the area around the Black Powder Mill to highlight its significance and improve the amenity for visitors.
- Enhancement of the creek corridor area at the rear of the Deer Park Hotel, given the significance and attractiveness of the existing deep pools and old River Red Gums.

Open Space Issues

- Increased recreational demand in a rapidly growing residential area.
- Relatively narrow width available along the creek corridor after the development of the Cairnlea estate.
- Significant Aboriginal cultural heritage sites along the creek corridor.



Figure 34: Significant Deep Pools at the rear of the Deer Park Hotel

Reach Five Actions

	Reach Five – Cairnlea New Residential (CR)	Lead Agency	Priority
CR1	Undertake the following projects, as identified in the Waterway Management Activity Plan: <ul style="list-style-type: none"> enhancement of natural pools as part of rehabilitation works; consider long-term terrestrial and riparian vegetation management to ensure riparian sedgeland is protected and enhanced. 	Melbourne Water	High
CR2	Establish the Black Powder Mill as a feature along the shared trail through the provision of interpretative signage.	Brimbank City Council	Medium
CR3	Complete the section of Kororoit Creek Trail (MTN) by closing the gaps between Western Highway and Station Road.	Brimbank City Council Parks Victoria	High
CR4	Plan for Kororoit Creek Trail connections to: <ul style="list-style-type: none"> the Gladstone Street wetlands and the native grassland reserve in the middle of the future development area of Cairnlea, north of Cairnlea Drive, as well as secondary links to the civic / education precinct and VUT; Station Waters and Waterfield Park; the netball and lawn bowling facilities on the north side of the Western Hwy; the Cairnlea neighbourhood activity centre on Furlong Road. 	Brimbank City Council	Medium
CR5	Encourage the Deer Park Hotel operators to treat the creek corridor as a valuable feature.	Brimbank City Council	Medium
CR6	Upgrade the gravel section of the Kororoit Creek Trail (MTN) within Cairnlea to conform with Ausroads Trail Standards.	Parks Victoria Brimbank City Council	Medium
CR7	Investigate measures to protect and enhance areas of remnant native grassland along the southern side of the creek.	Brimbank City Council	Medium

2.6 Reach Six – Orica Industrial

The Orica Industry Reach runs for approximately 900 metres through the private land of Orica Industries, located on the south side of the Western Highway and the west side of the Western Ring Road. The creek corridor is located just 50 metres from the edge of the Western Highway.

The creek corridor is well incised with some mature remnant River Red Gums, but is mainly dominated by Peppercorn tree (*Schinus molle*).

One of the site’s entry drives bridges the creek corridor.

Since it is located on private land, within a facility that includes chemical manufacturing processes, the Orica Industrial Reach will have no immediate role as part of the overall linear trail and open space system. Public safety within this reach cannot be assured due to these processes and, as a result, the shared trail will need to be directed away from this area.

The Deer Park Hunt Club and Community Centre is located 600 metres along the Western Highway, west of the Deer Park Hotel and the creek crossing. The centre is the home of the Sunshine Historical Society. Deer Park Reserve is located adjacent to the centre and the Deer Park Bowling and Netball Clubs are located on the opposite side of the highway.



Figure 35: Creek Corridor Landscape through Orica property

Biodiversity

This section of the creek runs through industrial private property, hence information regarding the biodiversity of this site is limited. River Red Gums (*Eucalyptus camaldulensis*) would have dominated the Riparian Woodland of the creek prior to European settlement, but a dense cover of Pepper Trees (*Schinus molle*) now appears to dominate the riparian vegetation. Remnant Plains Grassland persists within this reach (Oates and Taranto 2001).

Flora and Fauna Values

- Endangered Plains Grassland remnant
- Potential faunal habitat for the:
 - Growling Grass Frog (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act) – instream values / deep pools
 - Striped Legless Lizard (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act) – grassland areas / rocky outcrops

Key Threats / Issues

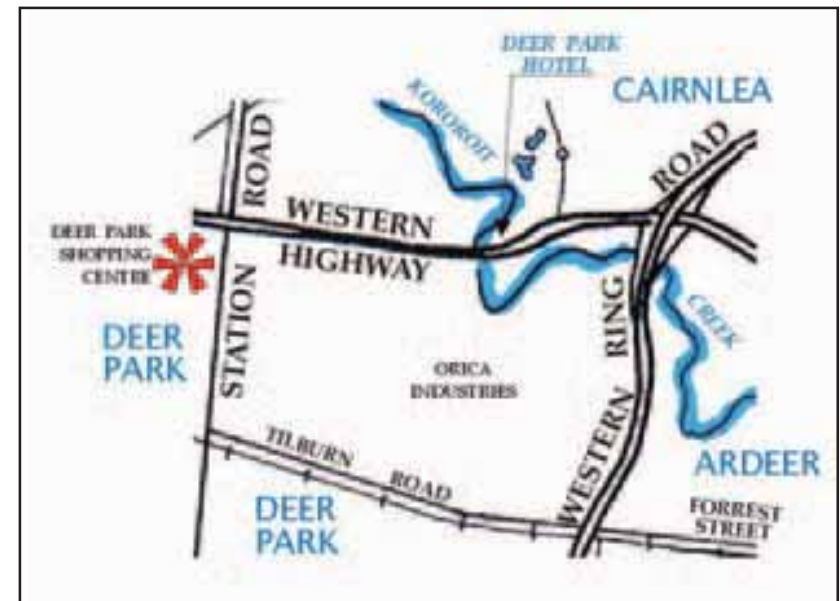
- Future development or changed land-use that may negatively impact on water quality
- Weed invasion, Refer Appendix C

Landscape Character

Kororoit Creek flows for a short length through the Orica property and is characterised by a deeply incised valley with some older examples of River Red Gum but mainly dominated by Peppercorn trees. The creek corridor is barely evident from the Western Highway. It is not addressed within the Orica property and is fenced off for its entire length. Existing mature exotic trees that occur along the Ballarat Road frontage of the Orica property, are an important landscape feature.

Visual Features

There are no key visual features within this reach as the creek corridor will remain inaccessible while it is in private ownership.



Open Space and Trails

Existing Shared Trails

There are no shared trails located within the private land of Orica.

Opportunities for Shared Trails

There will only be opportunities for development of shared use trails if the land-use were to change sometime in the future.

Shared Trails Issues

- Existing private land ownership by the Orica company.
- Access across the Western Highway and the exit lane of the Western Ring Road.
- Safety issues associated with the current land-use. Explosives are stored only a relatively short distance from the creek corridor.

Existing Open Space

There are no areas of public open space located within the private land of Orica.

Opportunities for Open Space

If current land-use was to change, there would be excellent opportunities to create open space areas along the creek corridor. Existing buildings and infrastructure associated with the Orica operations are located away from the creek corridor.

Open Space Issues

- Existing private land ownership by the Orica company.
- Safety issues associated with the current land-use. Explosives are stored only a relatively short distance from the creek corridor.

Reach Six Actions

Reach Six – Orica Industrial (OI)		Lead Agency	Priority
OI1	Investigate opportunities to construct stormwater treatment ponds on the downstream end of the Christie Street Drain.	Melbourne Water	High
OI2	Ensure all values (flora, fauna, archaeological, waterway, heritage and landscape values etc.) associated with the Orica site is assessed as part of any future proposals for a change of land use.	Brimbank City Council	Medium
OI3	Support public access restriction in this reach for safety reasons, while Orica owns and uses the site.	Orica Brimbank City Council	Medium
OI4	In the event Orica ceases to use the site, seek to incorporate this reach within the linear open space corridor and extend the shared trail through it.	Brimbank City Council Parks Victoria	High
OI5	Upgrade the Kororoit Creek Trail on the northern side of the Western Highway, between the Western Ring Road and Cairnlea Drive and west to the Deer Park Hotel to conform with Ausroads Trail Standards.	Brimbank City Council VicRoads	High
OI6	Review the pedestrian crossing at the Western Highway on the western side of the Western Ring Road (and the entry / exit lanes of the Western Ring Road at the Western Hwy) to ensure it is marked and signposted clearly.	Brimbank City Council VicRoads	Medium



Figure 36: Western Ring Road seen from within the Orica property



Figure 37: Creek Corridor is fenced on both sides through the Orica property

2.7 Reach Seven – Sunshine Residential (SR)

The Sunshine Residential reach runs from the Western Ring Road / Western Highway interchange, approximately seven kilometres south-east to Learmonth Crescent in Sunshine West. It is characterised by an incised creek corridor with limited remnant indigenous vegetation and residential properties backing onto the corridor. Significant rock escarpments are located within this reach, especially near Selwyn Park.

Jones Creek flows into Kororoit Creek about one kilometre east of the Western Ring Road. A narrow creek corridor of 30–40 metres wide prevails through this established residential area and a shared trail is provided along its entire length, although it is constructed of asphalt in many places.

The Kororoit Creek 'swimming pool' was once located within the creek itself, near Selwyn Park in Albion, and is an important historical feature.

Secondary schools located within a kilometre of the creek corridor are:

- Sunshine College – West Campus;
- Sunshine College – Senior Campus; and
- Sunshine College – Ardeer Campus.

Important community facilities located close to the creek corridor are:

- Sunshine Marketplace Shopping Centre and Sunshine Plaza; .
- The Macedonian Community Centre; and
- Sunshine Railway Station.

There are three road crossings of the creek corridor within this reach, apart from the Western Ring Road:

- Forrest Street;
- Glengala Road; and
- Wright Street.



Biodiversity

This reach is highly urbanised for its full length with rear fence lines and open space adjoining the waterway. The creek corridor and surrounds have been developed for use as open space. Some areas have been revegetated, predominantly with overstorey species, but generally the area has been cleared and now supports mown lawn. Prior to European settlement this area would have supported Riparian Woodland dominated by Red Gum along Kororoit Creek, with scattered Escarpment Shrubland, and surrounding Plains Grassland (Oates and Taranto 2001).

Flora and Fauna Values

- Locally to regionally significant rock escarpments and associated vegetation
- Rocky escarpment and associated vegetation at Selwyn Park including the State-significant Tough Scurf-pea (*Cullen tenax*)
- Locally to regionally significant instream vegetation
- On the downstream side of Buckingham Reserve there is well established instream vegetation and deep pools and riffle habitat potentially important for water birds and the water rat (*Hydromys chrysogaster*)
- The section of Kororoit Creek adjacent to the Western Ring Road provides habitat for the Clamorous Reed Warbler, Little Grassbird and Nankeen Night Heron
- Potential faunal habitat for the:
 - Growling Grass Frog (Vulnerable – EPBC Act, Endangered –DSE 2003, listed under the FFG Act)
 - instream values / deep pools
 - Regionally significant River Red Gums (*Eucalyptus camaldulensis*).



Figure 38: Creek Pools and existing residential properties beyond

Key Threats / Issues

- Weed invasion – see Appendix C
- Rabbit grazing and disturbance
- Poor water quality
- Any future development backing on to the creek that may result in loss or degradation of vegetation and fauna habitat

Landscape Character

The majority of the creek through Sunshine consists of a relatively narrow corridor defined by the rear fences of adjoining residential properties. As a result the creek corridor appears visually remote from other open space.

The visual character of the creek is one of highly modified landform and vegetation, dominated by introduced grass species. As with reach four, however, revegetation undertaken in recent years is beginning to have a positive impact on the creek corridor's landscape character.

The reach includes a number of features that contribute to its visual and spatial interest:

- the former Kororoit Creek swimming pool and rock escarpments, near Selwyn Park in Albion;
- the open space between Ardeer Reserve and the Western Ring Road (including More Park);
- the confluence with Jones Creek next to the Western Highway;

Visual features in this reach are mainly confined to the creek corridor due to established residential areas that line the creek on each side.



Figure 39: Creek Pools near Beachley Reserve in Sunshine West

Visual Features

Some of the key visual features that are worth maintaining or enhancing in this reach are:

- Views into the creek corridor from within adjoining parks such as More Park, Selwyn Park, Arthur Beachley Reserve and Buckingham Reserve.
- Views from footbridges across the creek.
- Views from road bridges near the creek at the Western Highway, Forrest Street, Glengala Road and Wright Street.
- Views of rock and boulder escarpments, especially near Selwyn Park and Arthur Beachley Reserve.
- Views from residential streets.

Open Space and Trails

Existing Shared Use Trails

This reach has the most extensive provision of shared use trails along the entire study area.

An existing continuous trail currently runs from the trail connection to the Western Ring Road Trail at More Park in Ardeer, all the way to Learmonth Crescent, north of Somerville Road in Sunshine West. The trail is approximately seven kilometres in length and constructed of asphalt in some areas and concrete in others.

There are seven footbridge crossings of the creek corridor in this reach:

- at the southern end of More Park at the end of Esmond Street in Ardeer;
- at the northern end of Lawrence Street in Ardeer;
- at the northern end of Yallourn Street in Ardeer;
- on the southern side of the Forrest Street road bridge in Sunshine West;
- at the southern end of Lorraine Court in Sunshine West;
- at the southern end of Mernda Street in Sunshine West (discontinued road bridge); and
- next to Arthur Beachley Reserve in Sunshine West.



Figure 40: Footbridge across Kororoit Creek

The shared trail also utilises the Western Highway to cross the confluence with Jones Creek and the Wright Street road bridge to cross the creek corridor.

A substantial number of other recreational trails link to the Kororoit Creek Trail. These include:

- the Western Highway Trail running east and west along the Highway;
- the Western Ring Road Trail which connects at More Park and continues to Pipe Road in Laverton North;
- the power transmission easement which runs from the eastern service station on the Western Ring Road and north to Ridgeway Road in Sunshine West.

Opportunities for Shared Use Trails

The key remaining trail gap to be addressed within this reach is to connect the Kororoit Creek Trail from Learmonth Crescent in Sunshine West south to Somerville Road.

There is an opportunity to upgrade or improve existing trails to meet Ausroads Standards.

Other connecting trail opportunities are as follows:

- Link to a future Jones Creek trail;
- A new footbridge crossing at Ardeer Reserve;
- Linking central Sunshine to the creek corridor, via Durham Rd;
- A north-south Creek crossing at Ardoyne or Cannon Street to the west of Buckingham Reserve;
- Linking Buckingham Reserve with J. R. Parsons Reserve on the north side of Wright Street.



Figure 41: Shared Trail and Creek Corridor alongside Buckingham Reserve in Sunshine West

Shared Use Trail Issues

- Signage and legibility;
- Areas of trail in need of upgrade and repair;
- Width of available creek corridor to accommodate new trails;
- Poor surveillance on long stretches of shared trail could contribute to a sense of poor safety;

Existing Open Space

There are a number of existing public parks adjacent to the creek corridor within this reach. They are as follows:

- More Park, Ardeer, adjacent to the intersection of the Western Highway and the Western Ring Road. The park contains car parking, pavilion, and formal sporting fields;
- Ardeer Reserve, Ardeer. The reserve is mainly used for soccer;
- Selwyn Park, Albion. The park is mainly used for soccer and has a tennis club located next to the creek corridor. The park also contains the Albion Community Centre. The part of Kororoit Creek next to this park was once a public swimming hole and was once the host of the Victorian Swimming Championships;
- Arthur Beachley Reserve in Sunshine West. The park is mainly taken up by a soccer field and the associated pavilion; and
- Buckingham Reserve, Sunshine West. This large reserve is well elevated but relatively undeveloped from a recreational point of view.

There are also a number of informal areas of open space adjacent to the creek corridor within this reach. They are as follows:

- Land on the eastern side of the creek corridor, south of the Western Highway / Jones Creek confluence. The existing shared trail runs through this area;
- Land on the northern side of the creek corridor at the southern end of Lorraine Court in Sunshine West. This quiet, intimate area is recognisable for the number of large Weeping Willow trees next to the creek in this location;
- Land on the eastern side of Anderson Road in Sunshine;
- Open space on the opposite side of the creek corridor from Arthur Beachley Reserve.



Figure 42: Buckingham Reserve in Sunshine West

Recreation reserves located within a kilometre of the creek corridor are Carrington Drive Reserve, Ardeer Reserve, Davitt Drive Reserve, Ainsworth Reserve, Barclay Reserve, Castley Reserve, Tallintyre Road Reserve, McKay Memorial Gardens, Chaplin Reserve, O’Brien Park and Hill Reserve, and J.R.Parsons Reserve.

Opportunities for Open Space

- There is a key opportunity to develop both Selwyn Park and Buckingham Reserve as important recreation nodes for the district with improved parking and recreational facilities. Development of these nodes would provide opportunities for improved connections into the Kororoit Creek Trail;
- There is an opportunity to enhance other existing parks with

improved trail connections, tree planting, revegetation works and other general parkland facilities such as seating and shelter;

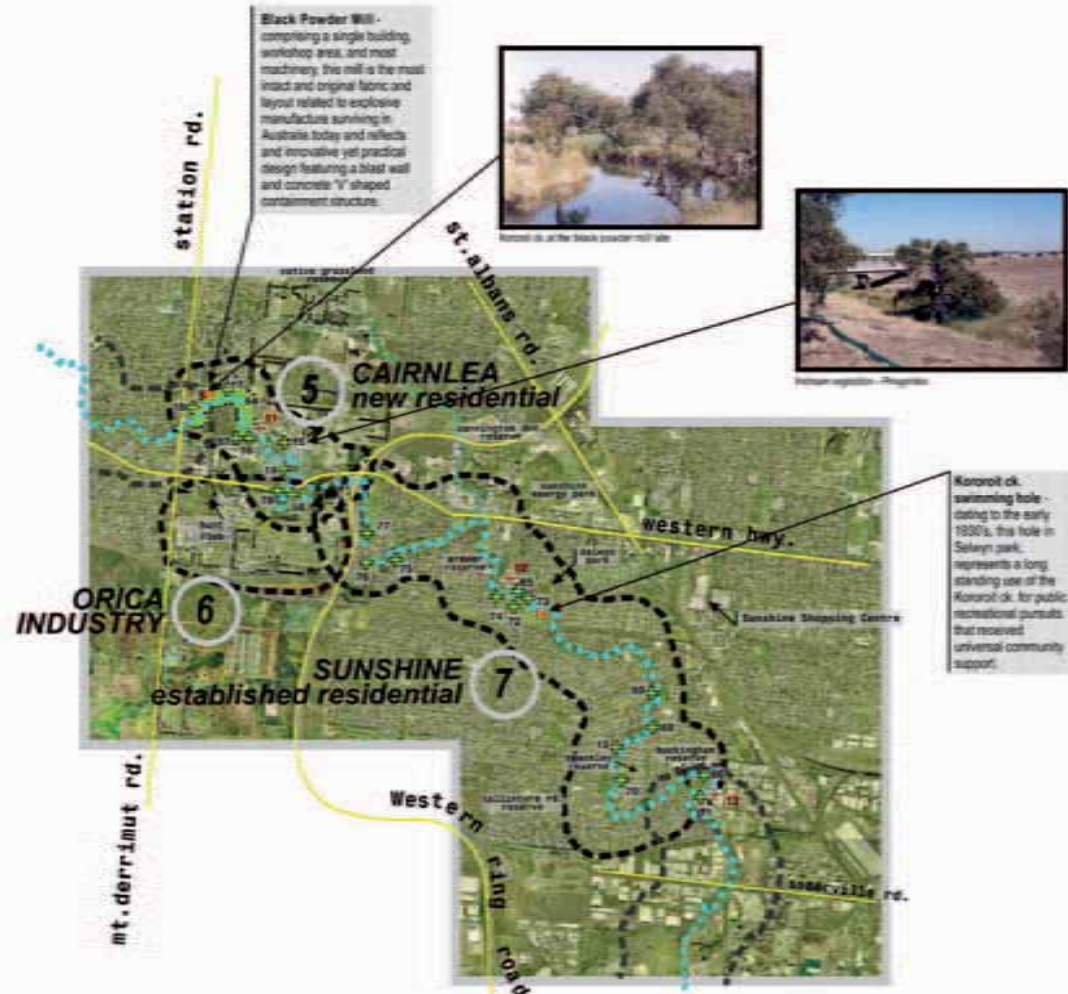
- There is an opportunity to enhance the existing informal open space areas in the future with improved trail connections, tree planting and other general parkland facilities such as seating and shelter.

Open Space Issues

- Increasing demand for a wider range of active and passive recreational experiences within existing open space areas in this reach;
- The narrow nature of the creek corridor which, in many instances, limits opportunities for further development; and
- Opportunities for shared use and facilities in areas of established formal sporting uses in existing reserves..

Reach Seven Actions

Reach Seven – Sunshine Residential (SR)		Lead Agency	Priority
SR1	Undertake projects, as identified in the Melbourne Water Waterway Management Activity Plan covering its reaches 5–8 and as specified in works packages 4 and 5. Works include: enhancement of escarpment and pool below mid point of Dalworth Street; enhancement of pool at Selwyn Park; enhancement of long pool downstream of Forrest Street; stream rehabilitation (pool and riffles and associated bank re-profiling) downstream of long pool through to Kosky Street footbridge; enhancement of two natural pools upstream and downstream of Kellaway Street Drain outfall; investigation of re-engagement of old course and stormwater treatment ponds on Kellaway Street Drain; improvement to Glengala Drain connection; construction of pool and riffles between Glengala Drain outfall and Glengala Drain floodway; investigation of stormwater treatment in Glengala Drain floodway; and weed control and revegetation throughout.	Melbourne Water	High
SR2	Construct footbridges (to shared trail standard) at the following locations: <ul style="list-style-type: none"> • at Ardeer Reserve; • Buckingham Reserve, Sunshine West, to Cannon Street (as part of a new section of trail). 	Brimbank City Council	Medium
SR3	Upgrade existing footbridges to address flood safety concerns and take into account Melbourne Water Guidelines for Constructed Paths.	Brimbank City Council	Medium
SR4	Establish Station Waters Park, Selwyn Park and Buckingham Reserve as recreation nodes, forming key links and destinations in the overall linear trail.	Brimbank City Council	Medium
SR5	Plan for Kororoit Creek Trail connections as part of the Metropolitan Trail Network: <ul style="list-style-type: none"> • to the Collenso Street powerline easement trail across Ridgeway Parade in Sunshine West from the proposed shared trail crossing at Selwyn Park; 	Brimbank City Council Parks Victoria	High
SR6	Assess the existing trail for disabled access performance and provide response.	Brimbank City Council	High
SR7	Identify historical relationships between the Harvester Company in Sunshine and Kororoit Creek and incorporate into public information programs, as appropriate.	Brimbank City Council	Medium
SR8	As private industrial lots on the north and eastern side of Buckingham Reserve are developed for residential purposes, acquire public open space along the creek corridor through developer contributions.	Brimbank City Council	High



Black Powder Mill - comprising a single building, workshop area, and most machinery, this mill is the most intact and original fabric and layout related to explosive manufacture surviving in Australia today and reflects an innovative yet practical design featuring a blast wall and concrete 'V' shaped containment structure.



Kororoit ck. at the black powder mill site



Riparian vegetation - Phragmites

Kororoit ck. swimming hole - dating to the early 1930's, this hole in Selwyn park, represents a long standing site of the Kororoit ck. for public recreational pursuits that received universal community support.

LEGEND

Kororoit creek course	railway line	yellow soil
Kororoit tributaries	existing easements for alignment	geomorphological site (with reference number)
road easement	vegetation site (with reference number)	



Note: Aboriginal cultural heritage places have been identified in the area covered by this map. For the most up to date information on the presence of Aboriginal cultural heritage places check the Cultural Resource Management Grid maps on Aboriginal Affairs Victoria's web site at <http://www1.dvc.vic.gov.au/sav>

Waterway summary

Planning Unit 5 Cairnlea New Residential
Stream Character - Confined single channel with steep banks, low stoniness, partly vegetated.
Water Quality Issues - Limited water quality impacts documented.
Water Quantity Issues - Altered hydrology due to developments is addressed via the MMC Land Development Manual, and planning referrals to MMC via LGAs.
Stream Management Issues - Impending development provides an opportunity for restoration/rehabilitation of neglected reaches of the creek.

Planning Unit 6 Orica Industrial
Stream Character - Highly modified single channel, low stoniness, poorly vegetated.
Water Quality Issues - No significant water quality issues identified at this site.
Water Quantity Issues - Existing industrial area is not considered to adversely affect water quantity issues in this area.
Stream Management Issues - Limited opportunities for enhancement, however riparian zone would improve with enhancement at upstream extent of Planning Unit area.

Planning Unit 7 Sunshine Residential
Stream Character - Confined single channel with steep banks, moderate stoniness, moderately vegetated.
Water Quality Issues - Limited water quality impact from established residential areas - majority of issues within this area will be addressed through Stormwater Management Plan initiatives.
Water Quantity Issues - Existing residential area is not considered to adversely affect water quantity issues in this area.
Stream Management Issues - Established riparian zone appears to be a focus of local government. Ongoing support will result in increased environmental values for this area.

KEY - ecologically significant sites/zones

Site	Section	Description
13	7	Boulder escarpment, in-stream vegetation - Typha, Phragmites
14	6	Eucalyptus camaldulensis - In-stream vegetation - Typha, some plantings
15	5	In-stream vegetation - Phragmites
16	5	In-stream vegetation - Lignum
17	5	In-stream vegetation - Lignum
18	5	x4 Eucalyptus camaldulensis, Lignum
57	5	Plains grassland EVC
58	6	Plains grassland EVC
64	5	Deep pools & alluvial terraces
65	7	Escarpment & terrace
66	7	valley profiles
68	7	Existing aquatic vegetation
69	7	Remnant Redgum Trees
70	7	
71	7	
72	7	Remnant escarpment vegetation
73	7	Significant rock escarpment
74	7	Native water-oat recorded in location
75	7	Native water-oat and Short-finned eel recorded in location
76	7	Remnant Redgums and escarpment
77	7	Site of faunal significance - Several bird and reptile species
78	6	Recordings of short-finned eel

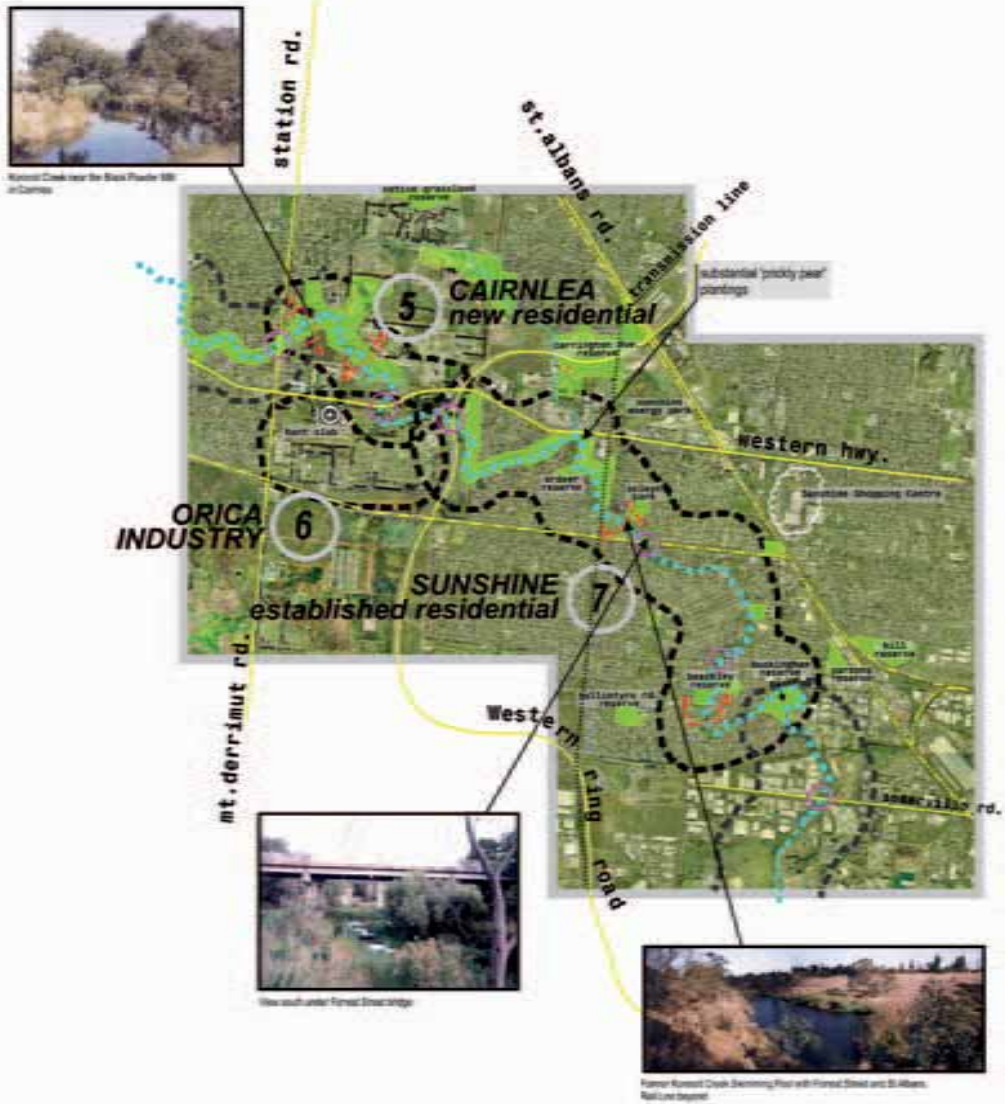
KEY - geomorphologically significant sites/zones

Site	Sec.	Description
11	5	Deep pools and alluvial terraces
12	7	Escarpment and terrace
13	7	valley profiles

KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reaches No. 5 (Cairnlea - New Residential)
 No. 6 (Orica Industry)
 and No. 7 (Sunshine - Established Residential)
NATURAL SYSTEMS & HERITAGE ANALYSIS



Drawing No. LSP 16
 Prepared for The Department of Sustainability and Environment by
 Land Design Partnership Pty Ltd and Team
 September 2005



Landscape / Visual Character:

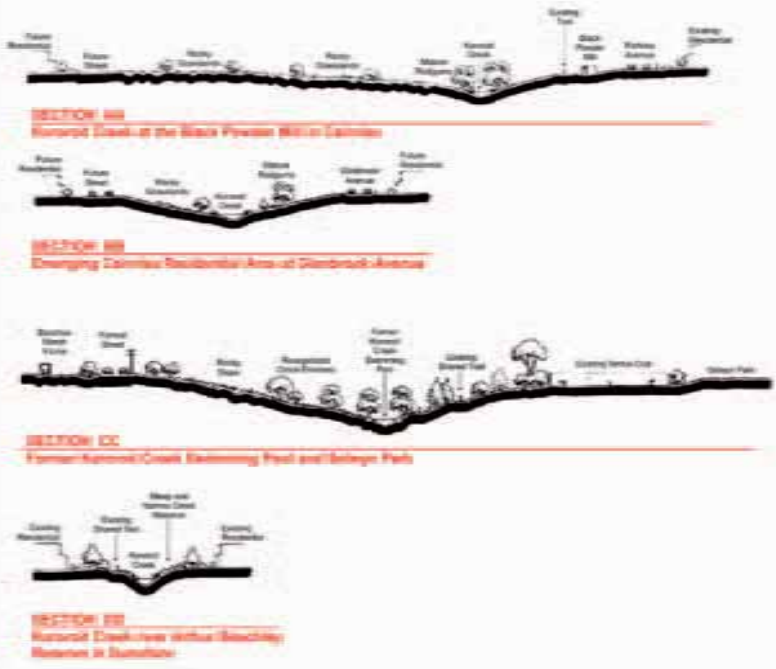
CAIRNLEA - NEW RESIDENTIAL
 While the Cairnlea development features a number of open space areas and types, particularly south of Furlong Road, the landscape character of the creek reaches is somewhat degraded. The creek is generally devoid of significant trees and has apparently been subject to sparse tree planting, in contrast to the more mature revegetation which has occurred upstream through Deer Park.

The creek itself occurs within a broad valley which is quite shallow in parts, meaning that it is visually and physically quite accessible. Despite this the landscape character does not encourage interaction with an investigation of the creek environment. In some ways the character is more typical of a western plains rural landscape, with rough fields and fences, than part of a well-integrated open space system, which in reality it is.

SUNSHINE - ESTABLISHED RESIDENTIAL
 As with Planning Unit 4, the character of the majority of the creek through Sunshine is of a relatively narrow corridor with the break of slope at the top of the bank defined by the rear parking lines of adjoining residential properties. Because of this typical development approach, the creek appears visually remote from other open spaces and from the majority of streets and roads. Periodically access into and along the creek corridor is, however, quite good, with shared foot being found along the majority of the creek within this unit.

The visual character of the creek itself is one of highly modified form and vegetation, which is dominated by introduced grass species. As with Planning Unit 4, through Deer Park, however, revegetation undertaken in recent years is beginning to have a positive impact on the landscape character.

The Planning Unit includes a number of features which contribute to the visual and spatial interest of the creek corridor including:
 - The Boomerang Pool near Steyer Park.
 - The open space between Concord Street and the Western Ring Road (including Stone Park).
 - The confluence with Jones Creek.



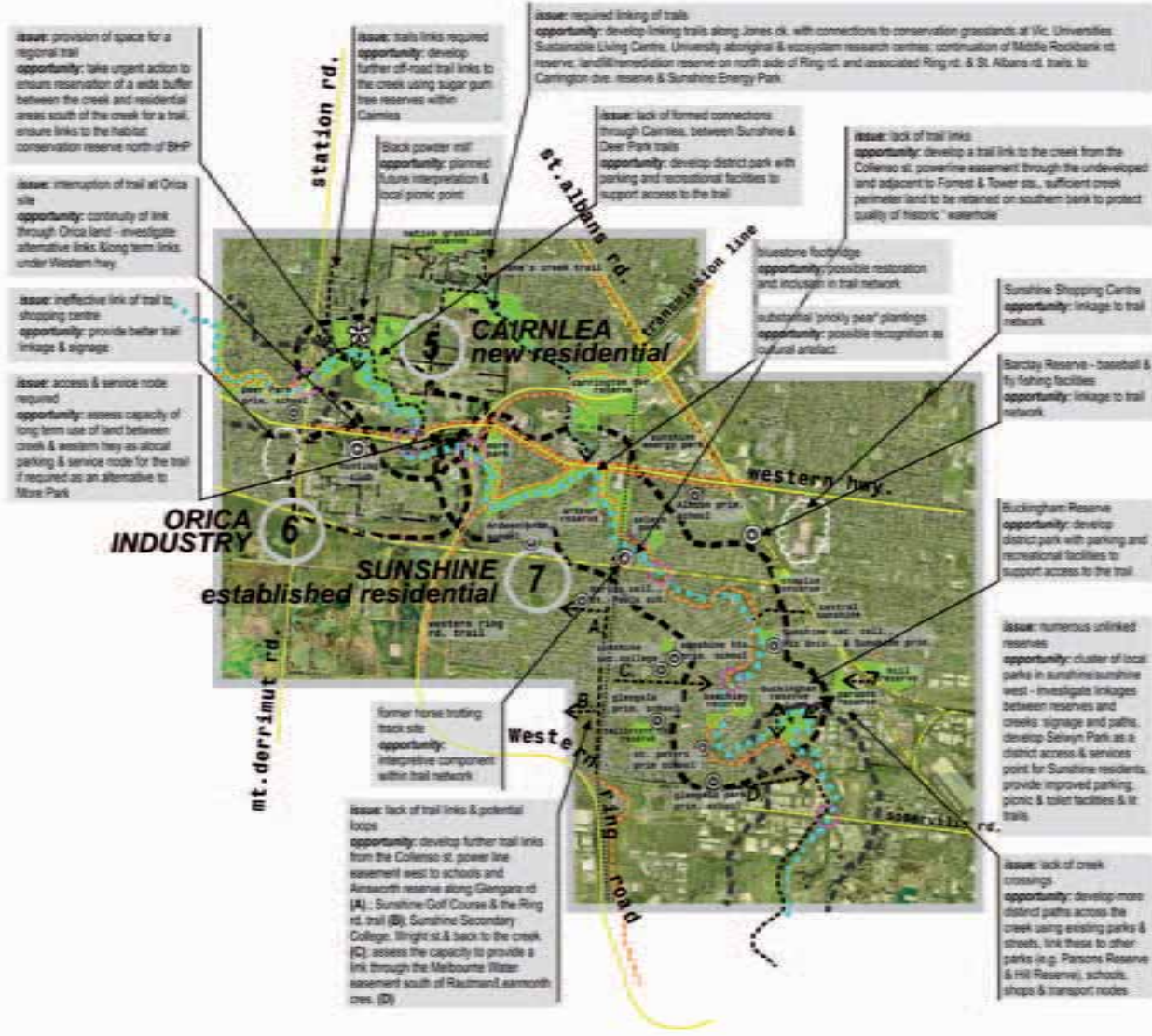
KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reaches No. 5 (Cairnlea - New residential)
 No. 6 (Orca - Industrial)
 and No. 7 (Sunshine - Established Residential)
LANDSCAPE CHARACTER ANALYSIS
 Drawing No. LSP 10

Prepared for The Department of Sustainability and Environment by
 Land Design Partnership Pty Ltd and Team
 September 2005/4



Key strategic issues/opportunities for parkland & trail provision

1. the private ownership of land (by Orca lca) adjoining the creek between Cairnlea and Sunshine is an issue to be resolved in providing continuous access. It will be important to ensure that land is reserved for the purpose of developing a regional trail link through 'Orca' land in the long term.
2. the Western hwy provides an obstacle for trail development, it is important to develop long term access along the creek underneath the highway
3. there is an opportunity in planning units 5 & 7 for a comprehensive set of linking trails using Jones ck., transmission lines, unmade road reserves and reclaimed fill and industrial land, all focussing on the Kororoit ck.
4. More Park provides opportunity for regional access, support services and a recreational activities node on the creek.
5. many existing creek crossings are not suitable to accommodate new trail networks. It will be necessary to develop improved creek crossings.
6. the Cairnlea development does not currently provide for a continuous shared trail along the Kororoit ck., despite the clear capacity for a strong regional link in this area, with strong off-road links. The layout of the subdivision has placed considerable constraints on the trail development. Alternative connections may need to be identified. Opportunities remain on undeveloped land south of the creek.
7. in the established residential areas of Sunshine and Ardeer (planning unit 7) many existing reserves, schools, commercial centres and other community resources are remote from each other. The Kororoit ck. provides the opportunity for enhanced links between these facilities

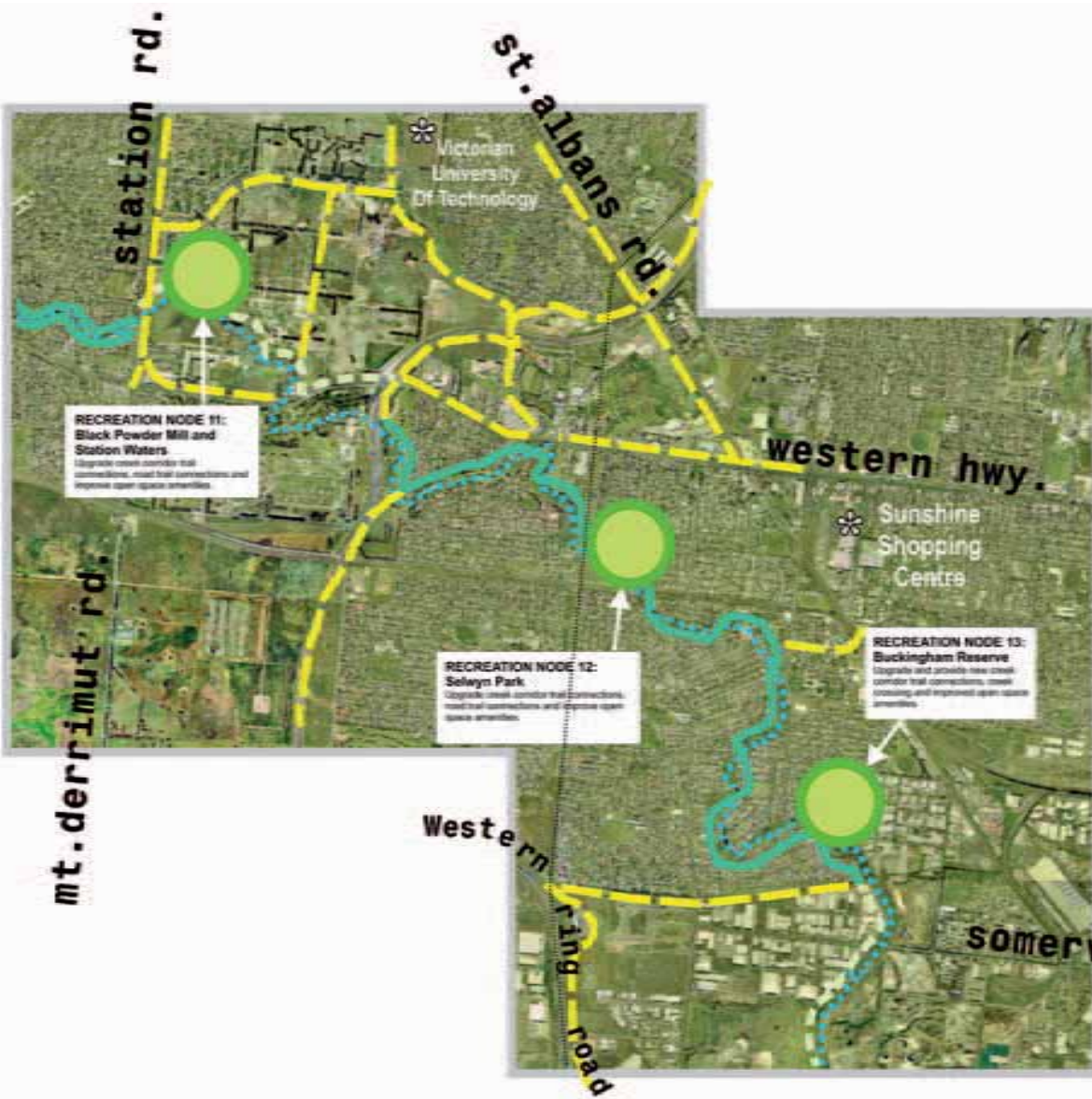


KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reaches No. 5 (Cairnlea - new residential)
 No. 6 (Orca Industry)
 and No. 7 (Sunshine - established residential)
LINEAR PARKLAND & TRAIL ISSUES AND OPPORTUNITIES






Drawing No. LSP/04


Prepared for The Department of Infrastructure by
 Land Design Partnership Pty Ltd and Team
 September 2005.





LEGEND


-  Existing Creek Alignment
-  Proposed Future Linear Trail Alignment
-  Existing Linear Trail
-  Existing and Proposed Secondary Trail Links
-  Proposed Recreation Nodes, comprising:
 - * Access to the Creek Corridor and the future linear shared trail system
 - * Public Open Space development;
 - * Car parking areas, and
 - * Visitor Amenities.


north

KOROROIT CREEK STRATEGIC PLAN 2005-2030
Reaches No. 5 (Cairnlea - new residential)
No. 6 (Orica - industry)
and No. 7 (Sunshine - established residential)

PROPOSED SHARED TRAIL and LINEAR PARKLAND
Drawing No. LST 04

Prepared for The Department of Sustainability & Environment by
Land Design Partnership Pty Ltd and Team
September 2005


LandDesign
Partnership

2.8 Reach Eight – Brooklyn/Altona Industry

The Brooklyn Altona Industry Reach runs from Learmonth Crescent in Sunshine West, approximately six kilometres south to the Geelong Railway Line. It is characterised by an incised creek corridor with little remnant indigenous vegetation, and industrial properties lining the corridor. In some cases along the creek corridor, landfill operators have severely modified the creek profile. The Friends of Lower Koroit Creek have revegetated much of the creek's edges in recent years.

Land ownership and zoning issues are complex in Reach 8, and resolution of these issues presents a significant challenge to create a continuous parkland corridor along the creek. Options for resolving these issues will be developed through further strategic analysis, as part of the preparation of the Koroit Creek Landscape Master Plan.

A narrow Creek corridor of 30–50 metres wide prevails through this industrial zone with some reserves concentrated around the convergence of the Westgate Freeway, Princes Highway and Grieve Parade. There are no formal shared trails, although the proposed Federation Trail crosses the Creek corridor just north of the Princes Highway.

An historic bluestone bridge is located between the Princes Highway and the Westgate Freeway and was the crossing point for the old Princes Highway. The bridge is located next to an existing rest area and offers the opportunity to include the structure as part of the shared trail system.

An 'urban forest', funded by the Smorgon family and planted in the 1980s, is located at the junction of Grieve Parade and the Westgate Freeway. This has significantly declined over the years and requires attention.

The site for the Memorial Park Crematorium and Floral Lawn Cemetery is located on the opposite side of the creek from the Urban Forest and contains some significant boulder escarpments.

Recreation reserves located adjacent to or within a kilometre of the Creek corridor are:

- W.L. Croft Reserve
- G.J. Hosken Reserve
- Harris Reserve (including Bocce Club); and
- J.J. Ginifer Reserve.

Secondary Schools located within a kilometre of the Creek corridor are:

- St Pauls Catholic College; and
- Bayside Secondary College – Altona North Campus.

There are five road crossings of the Creek corridor within this unit:

- Somerville Road
- Princes Highway
- Westgate Freeway
- Grieve Parade, and
- Barnes Road.

Important community facilities located close to the Koroit Creek corridor in this reach are:

- Altona Gate Shopping Centre; and
- Borrack Square Shopping Centre.

There are two landfill sites along the creek:

- Brooklyn Landfill and Waste Recycling (Sunshine); and
- Altona North Landfill – issues re future use of the site should be considered in the context of the creek.

Biodiversity

Prior to European settlement this reach of Koroit Creek would have carried Riparian Woodland dominated by Red Gum (*Eucalyptus camaldulensis*) surrounded by Plains Grassland (Oates and Taranto 2001). The creek runs through a built industrial environment. The original vegetation is barely discernable as the creek has been highly degraded through clearing of vegetation, grazing pressures, filling to the edge of the floodplain, and weed invasion. The creek reserve is devoid of most remnant Red Gums with only a few indigenous shrubs and grasses persisting.

The instream values vary, with scattered areas of intact instream vegetation and deep pools. There are numerous stormwater outlets into the creek from adjoining industrial land. The fish diversity is lowest in the southern section of the creek.

The basalt escarpments are infested with Boxthorn (providing some bird habitat, but it also provides cover for pest species such as the Rabbit and Red Fox). Horse grazing along the western side of the creek causes localised bank erosion.

Flora and Fauna Values

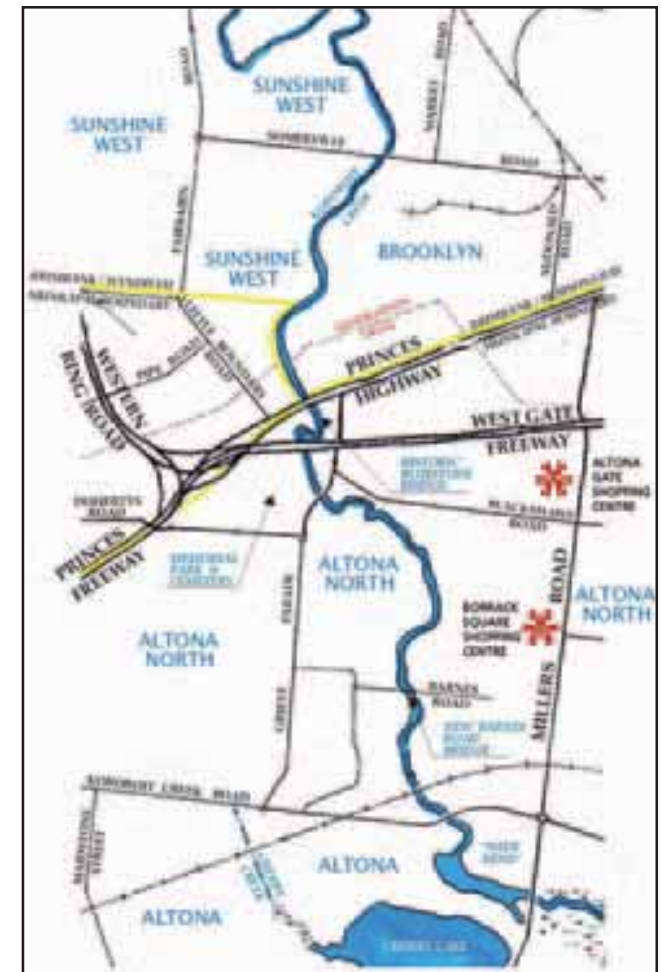
- Locally to Regionally-significant rock escarpments and associated vegetation
- Locally to Regionally-significant instream vegetation
- Instream values / deep pools
- Potential Faunal habitat for the Growling Grass Frog (Vulnerable – EPBC Act, Endangered – DSE 2003, listed under the FFG Act)



Figure 43: Old Geelong Road Bluestone Bridge (Princes Highway can be seen Beyond)

Key Threats / Issues

- Horse grazing on creek embankments causes soil degradation and pressure on indigenous plant species
- Rabbit grazing and disturbance
- Weed invasion – see Appendix C
- Poor water quality including relatively high contaminant levels in stream bed.
- Illegal filling along the creek associated with industrial development.
- Planned extensions of the Memorial Park Cemetery into the escarpment.



Landscape Character

As with the Sunshine Residential Reach, the visual character of the creek in this reach is one of highly modified landform and vegetation, which is dominated by introduced grass species. Visually, the creek is mostly framed by industrial elements such as buildings, containers and vehicles. The main exception to this is downstream of Grieve Parade where the creek is bounded by open space, including G.J. Hosken Reserve, and by the Altona Memorial Park. The sense of elevation at Hosken Reserve provided valuable views into escarpments and the creek corridor, most of which is 'hidden' in this reach.

The creek itself is quite deeply incised into the surrounding land, so the character within the corridor is one of remoteness and isolation. The generally degraded landscape is being improved through areas of revegetation and by a number of points of interest, such as historic and recent bridges that cross the creek.

The incised nature of the creek changes quite dramatically just upstream of Kororoit Creek Road, where the basalt flow that houses the creek from its headwaters gives way to the alluvial and beach deposits of the creek mouth.

Visual features in this reach are mainly confined to the creek corridor because of its deeply incised nature and through some significant modifications to the creek profile.

Visual Features

Some of the key visual features that are worth maintaining or enhancing in this reach are:

- Views from the future Federation Trail where it bridges the creek.
- Views from the historic bluestone bridge next to the Princes Highway.
- Views from footbridges, in general.
- Views from road bridges at Somerville Road, the Princes Highway, Grieve Parade, and Barnes Road.
- Views into the creek corridor and across to the Altona Memorial Park site from GJ Hosken Reserve and the Urban Forest.
- Views into the creek corridor from Harris Reserve.

Open Space and Trails

Existing Shared Trails

There are no formal trails located in this reach.

There are, however, some informal 'goat tracks' located along the eastern side of the creek between Somerville Road in Brooklyn and the Barnes Road bridge.

Shared Trail Opportunities

The creation of a continuous shared trail along this reach is critical in connecting the Bay Trail with the proposed Federation Trail and the existing shared trail in Sunshine West. Hence, there are numerous opportunities for shared trails within this reach:

- From Somerville Road, south to the proposed Federation Trail bridge, including connection up to the Federation Trail from the creek corridor;
- From the proposed Federation Trail bridge to G.J.Hosken Reserve next to Blackshaws Road in Altona North, including the integration of the historic bluestone Princes Highway bridge.
- From G.J.Hosken Reserve, south to the Barnes Road bridge; and
- From the Barnes Road bridge, south to Cherry Lake.
- Creation of secondary trail links to existing secondary schools located within a kilometre of the creek corridor such as St.Pauls Catholic College and Bayside Secondary College – Altona North Campus.

Shared Trail Issues

- Steep topography and high elevations of the Somerville Road bridge and the proposed Federation Trail bridge;
- Private land ownership by large companies and encroachment by them into the creek corridor, especially landfill. Sections of the creek are zoned as PPRZ but are privately owned. This poses concerns for trail alignment and quality of the creek corridor.
- High levels of truck and other heavy transport use along connecting roads and bridge crossings, associated with the creek corridor; and
- The Geelong Railway and Kororoit Creek Road bridges do not allow for a direct shared trail crossing along the alignment of the creek corridor at this point. A working group will be established with relevant agencies to resolve trail route issues from north of the national rail line to Cherry Lake. State Government involvement is critical in overcoming this issue.

Existing Open Space

A narrow creek corridor of 30–50 metres wide prevails through this industrial zone with some reserves concentrated around the convergence of the West Gate Freeway, Princes Highway and Grieve Parade. There are no formal shared trails, although the proposed Federation Trail will cross the Creek Corridor just north of the Princes Highway.

- There is no adjacent existing open space between Somerville Road and Grieve Parade (a distance of almost 1500 metres), although Melbourne Water owns a number of titles adjacent to Kororoit Creek.
- An area of formal parks and open space areas are located next to the creek corridor on Blackshaws Road in Altona North, comprising G.J.Hosken Reserve next to the creek corridor and W.L.J.Crofts Reserve to the north of Blackshaws Road.
- The Urban Forest is also located next to G.J.Hosken Reserve along the creek immediately south of the West Gate Freeway. This is a filled area that was planted in the 1980s with indigenous trees by the Smorgon family.
- Harris Reserve is located on the eastern side of the creek corridor in Altona North and contains a formal playground area and bocce courts.



Figure 44: Creek Pools near G.J.Hosken Reserve in Altona North

Open Space Opportunities

- Development of a major recreational node at G.J.Hosken Reserve, serving as a district hub for the Kororoit Creek Trail with improved parking, trail connections and park facilities. This could also include improved connections across Blackshaws Road to W.J.L.Crofts Reserve.
- The historic bluestone bridge is located between the Princes Highway and the Westgate Freeway and was the crossing point for the old Princes Highway. The bridge is located next to an existing highway rest area, providing an opportunity to include the structure as part of the shared trail system. Improvement of the highway stopover could serve as a secondary access point to the Kororoit Creek Trail;
- Improvement of Harris Reserve to enhance future shared trail connections and promote the park as a secondary access point to the creek corridor.
- Creation of viewing areas from existing bridges within this reach, such as Somerville Road, Princes Highway, Westgate Freeway, Grieve Parade and Barnes Road.

Open Space Issues

- Concentration of industrial uses adjacent to the creek corridor and in close proximity to existing parks and reserves;
- High levels of truck and heavy transport vehicle movements through the area and on adjacent roads to existing open space;
- Private land ownership and narrow creek corridor reserve limits opportunities for increased open space development.
- At Altona North Landfill (adjacent to McArthurs Road) sections of the land are to become public open space but are currently filled to a grade greater than desirable.



Reach Eight Actions

Reach Eight – Brooklyn / Altona Industry (BA)		Lead Agency	Priority
BA1	Undertake projects, as identified in the Melbourne Water Waterway Management Activity Plan covering its reaches 3–5 and as specified in works packages 6 and 9. Works include: energy dissipation at Burgess Street Drain and improved connection; investigation of stormwater treatment in W.J.L Crofts Reserve; re-activating old stream course opposite Hosken Reserve; stream rehabilitation (pool and riffles and associated bank re-profiling); supplementary planting of existing revegetation; investigation of enhancement of existing pool upstream of McArthurs Road; stream rehabilitation (pool and riffles and associated bank re-profiling) between Barnes Road and Dohertys Road; and weed control and revegetation throughout.	Melbourne Water	High
BA2	Assess whether the following places warrant protection through the Heritage Overlay: <ul style="list-style-type: none"> • the former hermit residence, within the corridor near Grieve Parade Bridge; and • BP Pipe Bridge and Building on Toll Estate preserved as part of the 1950’s refinery in Altona North. 	Hobsons Bay City Council	Medium
BA3	Ensure that the Kororoit Creek Trail provides: <ul style="list-style-type: none"> • a new shared trail from the Barnes Road Bridge to Kororoit Creek Road; • an upgrade of the informal Melbourne Water access track on the eastern side of the creek, between Barnes Road and Grieve Parade to Ausroad Trail Standards; • an appropriate access point from Somerville Road; • a connection between GJ Hosken Reserve and the historic MOS bridge in Brooklyn (to become part of the Federation Trail); and • a working party will be established to resolve the alignment of the trail at the National Railway Line, Kororoit Creek Rd and Wide Bend/Rowdens Swamp. • Hobsons Bay City Council will continue to resolve permit issues at the Altona North Landfill site. 	Parks Victoria State Government Hobsons Bay City Council	High
BA4	Establish the Princes Highway rest area / Old Geelong Road Bridge / Urban Forest, Harris Reserve, and the Barnes Road Bridge area as the ‘key features’, to be highlighted in an overall interpretations / wayfinding path for the creek linear park (note Hobsons Bay has installed a sculpture at Barnes Road Bridge, called ‘Threshold’). <ul style="list-style-type: none"> • Develop Hosken Reserve as a major entry park to the creek, with car and bicycle parking and picnic facilities. 	Hobsons Bay City Council	Medium
BA5	Plan for and construct the extension of the Kororoit Creek Trail from Learmonth Crescent in Sunshine to the existing MOS bridge in Brooklyn as part of the Metropolitan Trail Network.	Brimbank City Council Wyndham City Council	High

Figure 45: Creek Corridor looking north from Somerville Road Bridge

Main outfall sewer in Altona North - extending from Brooklyn to Mlembea and representing the largest public works program undertaken in Victoria at it's completion date in 1987, the sewer consists of a network of bridges, tunnels, and vaults that faithfully served a rapidly expanding population for more than 50 years



Historic bluestone bridge



Site of local historical significance



Aquatic herbland



Low-quality in-stream vegetation - Phragmites australis

Waterway issues

Planning Unit 8 Brooklyn/Altona Industrial
Stream Character - Modified low sinuosity confined single channel waterway, with limited riparian vegetation.
Water Quality Issues - Contaminated substrate sediments from years of unauthorised disposal of toxic material.
Water Quantity Issues - Existing industrial area is not considered to adversely affect water quantity issues in this area.
Stream Management Issues - This modified reach of waterway requires protection from encroaching adjacent land uses, and further activities to seek to restore/rehabilitate stream condition throughout, particularly in the riparian zone.

KEY - ecologically significant sites/zones

Site	Section	Description
2	8	Low quality in-stream vegetation - Phragmites australis
3	8	Rocky escarpment
4	8	Rocky escarpment / Ligum vegetation
5	8	Rocky escarpment
6	8	Rocky escarpment, Eucalyptus present
7	8	Escarpment Rocky - Escarpment vegetation, some Ligum by creek, disturbed site
8	8	Wetland area
9	8	Rocky escarpment (very weedy)
10	8	Rocky escarpment
11	8	Deep pools, in-stream values high, lots rocky
12	8	Rocky escarpment
54	8	Site of Local Botanical significance
61	8	Aquatic herbland
64	8	Remnant Tangled Ligum vegetation
65,66	8	Significant rock escarpments
67	8	Valley profiles
67a	8	Rock outcrop habitat for reptiles

KEY - geomorphologically significant sites/zones

Site	Sec.	Description
14	8	Valley profiles

LEGEND

Koroit creek course
 Koroit ck. tributaries
 roadways as marked
 railway line
 existing/transportation alignments
 historical site
 geomorphological site (with relevance marker)
 ecological site (with relevance marker)

Note: Aboriginal cultural heritage places have been identified in the area covered by this map. For the most up to date information on the presence of Aboriginal cultural heritage places check the Cultural Resource Management Grid maps on Aboriginal Affairs Victoria's web site at <http://www1.dic.vic.gov.au/aa>



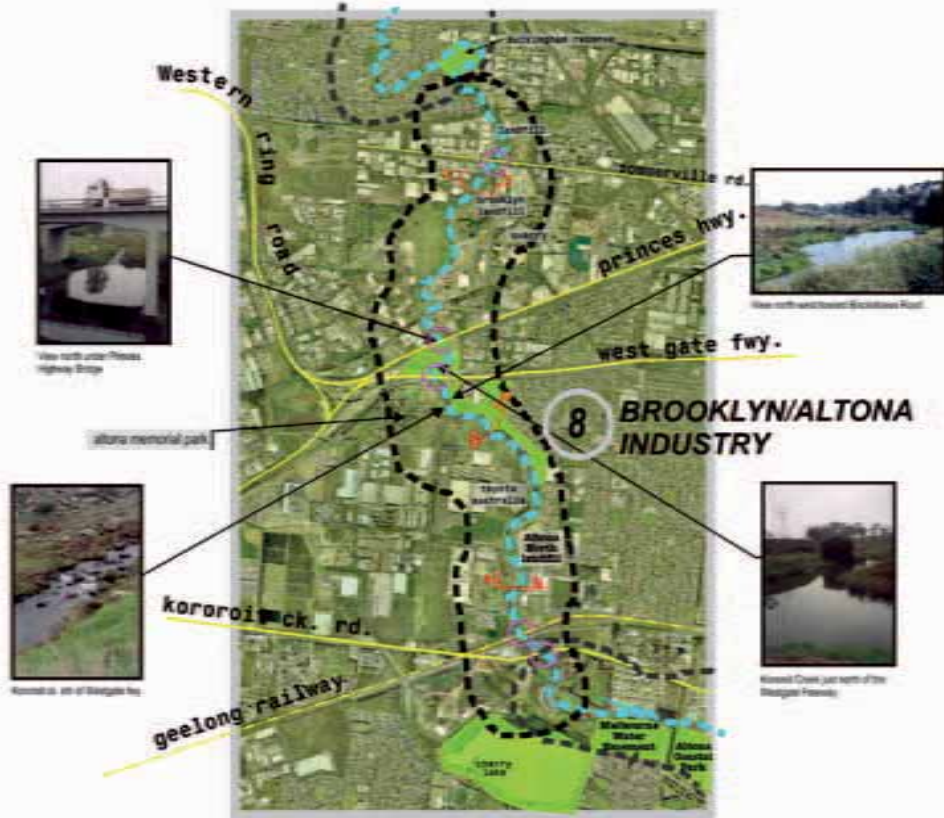
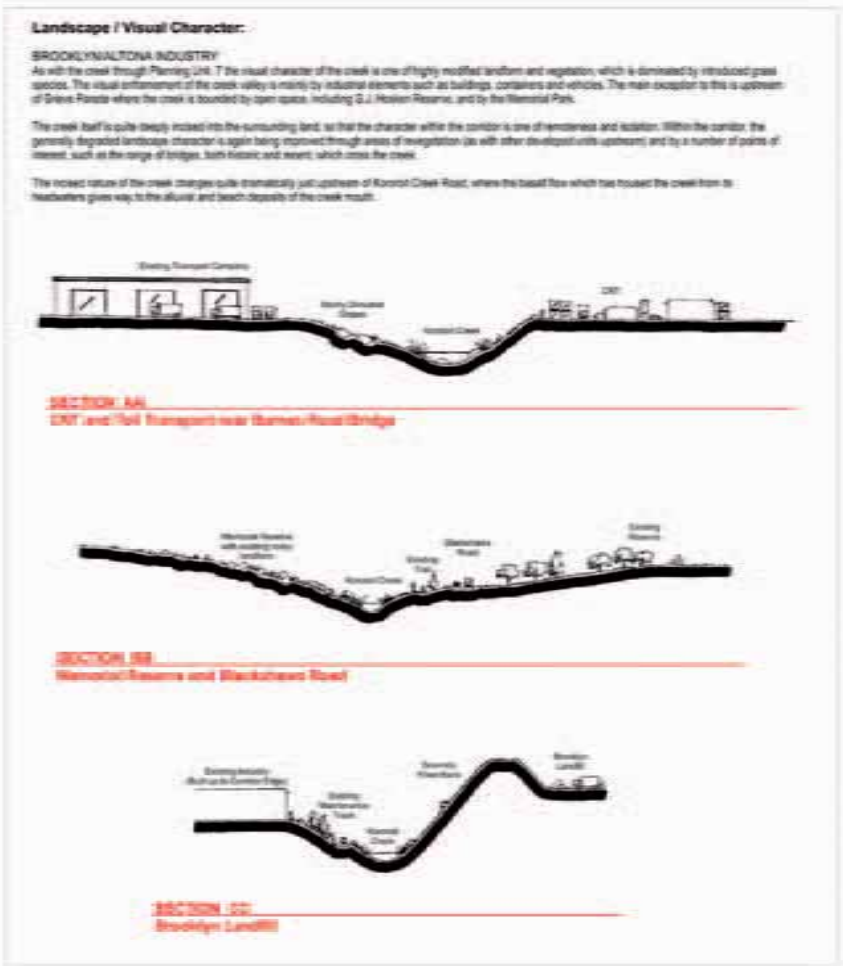
north



KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 8 (Brooklyn/Altona Industry)
NATURAL SYSTEMS & HERITAGE ANALYSIS
 Drawing No. LSP 17

Prepared for The Department of Sustainability and Environment by
 Land Design Partnership Pty Ltd and Team
 September 2005





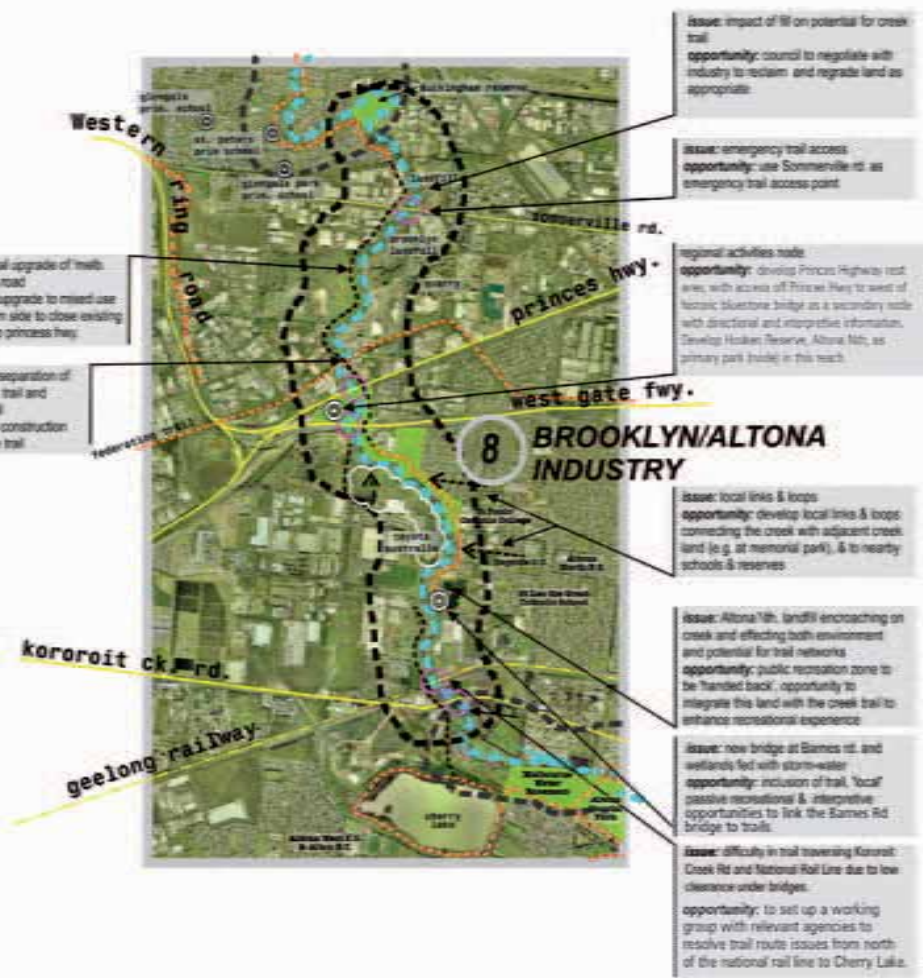
KOROROIT CREEK STRATEGIC PLAN 2005-2030
Reach No. 8 (Brooklyn/Altona Industry)
LANDSCAPE CHARACTER ANALYSIS
Drawing No. LSP 11

Prepared for The Department of Sustainability and Environment by
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September 2005



Key strategic issues/opportunities for parkland & trail provision

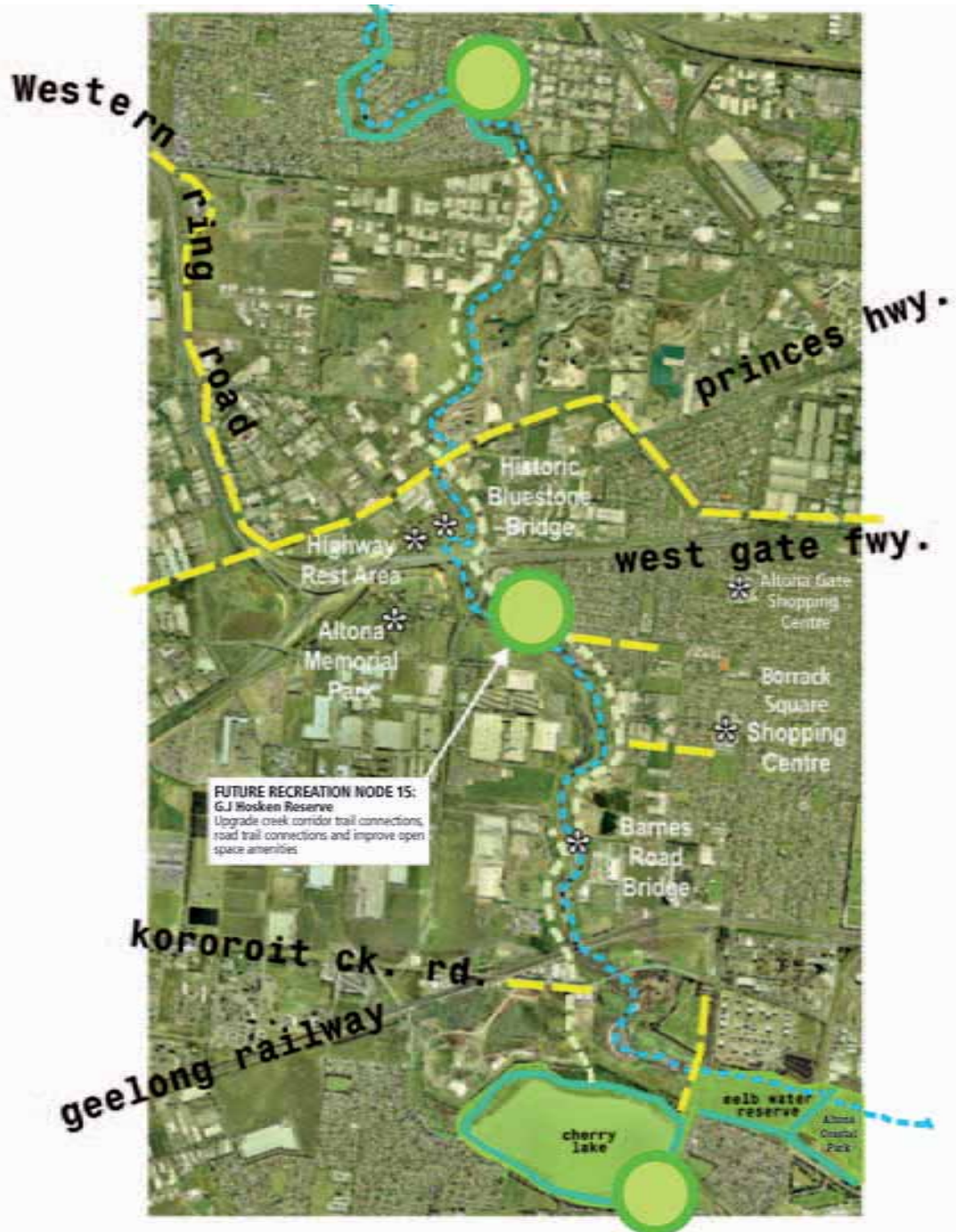
1. there is potential to formalise existing informal trails along the creek, and to connect these to contribute to a continuous regional trail in the planning unit.
2. while opportunities for specific recreation sites are limited by the steepness of the creek valley and ownership there is potential to develop a regional access and activities node at Hosken Reserve.
3. linking access trails & loops to nearby reserves, schools, and other activity nodes.
4. land ownership adjacent to the creek presents a constraint on both trail and recreation development, and may require a 'partnership' approach for resolution.
5. the recurrence of various bridges, both old and new, presents a theme, unique to this planning unit, which may provide landscape and interpretation opportunities.
6. there is a need to provide clear control and guidance in relation to the impact and encroachment of adjacent industrial uses.



KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 8 (Brooklyn/Altona Industry)
LINEAR PARKLAND & TRAIL ISSUES AND OPPORTUNITIES
 Drawing No. LSP 05






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 September 2005





FUTURE RECREATION NODE 15:
G.J. Hosken Reserve
 Upgrade creek corridor trail connections, road trail connections and improve open space amenities

LEGEND

-  Existing Creek Alignment
-  Possible Future Linear Trail Alignment
-  Existing Linear Trail
-  Existing and Proposed Secondary Trail Links
-  Proposed Recreation Nodes, comprising:
 - * Access to the Creek Corridor and the future linear shared trail system
 - * Public Open Space development
 - * Car parking areas, and
 - * Visitor Amenities



KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 8 (Brooklyn/Altona Industry)
PROPOSED SHARED TRAIL and LINEAR PARKLAND
 Drawing No. L57.05

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2.9 Reach Nine – Altona Coastal / Wetlands

The Altona Coastal / Wetlands Reach runs from the Geelong Rail Line, approximately three kilometres east to Port Phillip Bay. It is characterised by areas of high ecological value with industrial properties lining the northern side of the corridor.

'Wide Bend' is a significant habitat and ecological area where the creek runs between Kororoit Creek Road and Millers Road. Cherry Lake is an important regional recreational destination adjacent to the creek corridor. The lake is a flood retarding basin constructed in the 1960s and is mainly fed by Cherry Creek. Kororoit Creek enters Port Phillip through the Altona Coastal Park where thousands of migratory birds visit every year and where large areas of intact saltmarsh and mangroves form an important ecological location.

The creek corridor expands out to a generous 300–400 metres wide floodplain through this mainly industrial area. The Hobson Bay Trail (part of the Around the Bay Trail) provides access along the coast to Williamstown, Altona and beyond as well as a circuit around Cherry Lake.

The Williamstown Racecourse was once located near the creek mouth and was in operation until the 1930s when it was used as an army base and then a migrant camp. The grandstand burned down in the 1940s but a fragment of the ruin still remains.

The Mobil Refinery is located along the northern side of the creek corridor and dominates the visual landscape in most places. Fishing sheds are located at the creek mouth.

Altona Secondary College is located 800 metres from Cherry Lake. There are three road crossings of the creek corridor within this unit:

- Kororoit Creek Road;
- Millers Road; and
- Racecourse Road (a creek ford).

The Geelong and Altona railway lines both cross Kororoit Creek within this reach.

Important community facilities located close to the Kororoit Creek corridor in this reach are:

- Jawbone Flora and Fauna Reserve, including the Paisley Challis Wetlands in Williamstown;
- Altona Lakes Public Golf Course;
- Newport Lakes Park;
- Hobsons Bay Civic Centre;
- Altona Village;
- Altona and Seaholme Railway Stations;
- Altona Safe Harbour at Seaholme (including the Altona Yacht Club); and
- The Pines Scout Camp.

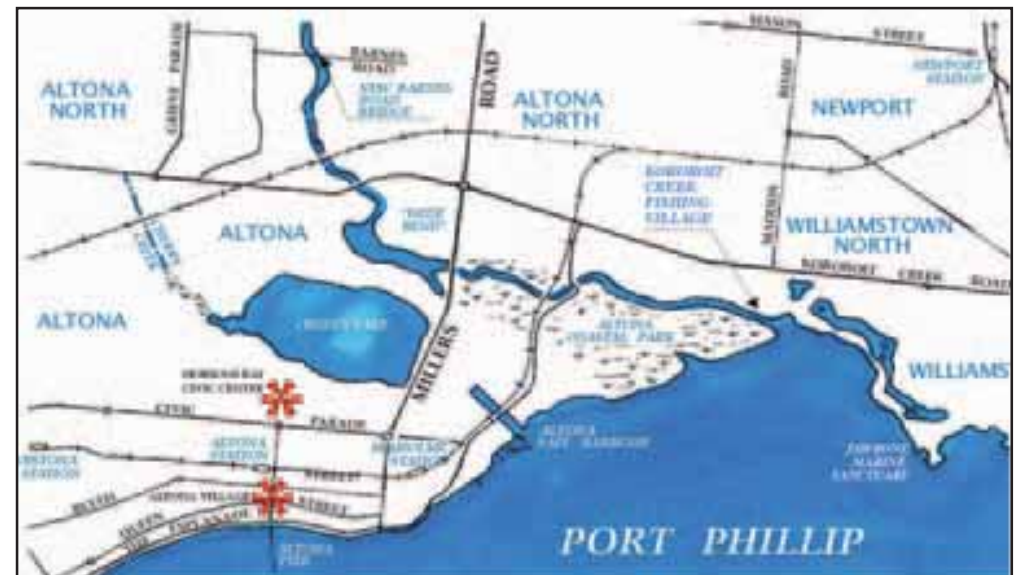
Biodiversity

Prior to European settlement this section of the creek would have supported Mangrove Shrubland at the mouth of Kororoit Creek surrounded by extensive Coastal Saltmarsh vegetation. Today, Altona Coastal Park is an important part of a system of wetlands on the western shore of Port Phillip Bay. The remnant mangrove population is of regional significance. The park provides vital habitat for a variety of local and migratory bird species. It also has links to Point Cook Coastal Park, Cheetham Wetlands, Cherry Lake and Jawbone Marine Sanctuary.

However, extensive environmental degradation in the area has resulted in loss of flora and fauna values and extensive weed invasion (Carr 1988). In addition, the potential effects of Kororoit Creek on Jawbone Marine Sanctuary should be taken into consideration.

Flora and Fauna Values

- Locally to regionally-significant instream vegetation
- The tidal channels and associated saltmarsh are one of the few remaining coastal wetlands in metropolitan Melbourne
- The inter-tidal zone provides roosting and foraging habitat for shorebirds (waders)
- The remnant Shrubby Glasswort (*Sclerostegia arbuscula*) and Black-seed Glasswort (*Halosarcia pergranulata*) is significant and is potential habitat for the Orange-bellied Parrot (DSE – critically endangered, listed under FFG Act, Endangered – EPBC Act)
- Downstream of Wide Bend, Racecourse Road is the extent of the tidal influence in the creek and the vegetation in this area communities are predominantly adapted to saline conditions
- Upstream of Wide Bend, freshwater with extensive areas of instream vegetation prevails including Common Reed (*Phragmites australis*) providing excellent habitat for bird species such as the Australian Reed Warbler



Altona Coastal Park

Prior to European settlement Altona Coastal Park would have supported a more extensive Mangrove Shrubland along Kororoit Creek, surrounded by extensive Coastal Saltmarsh vegetation. Some Coastal Dune Scrub was also present and formed part of a band of such vegetation that followed the coastline to Altona Meadows (Oates and Taranto 2002). There has been extensive disturbance to the area resulting in weed invasion (Thompson Berrill Landscape Design 1998). A detailed Management Plan was prepared by the Department of Natural Resources and Environment and Hobsons Bay in 1992 (Schulz 1992) following a study by Carr (1988). In addition, updated recommendations are made in the revised Kororoit Creek Waterway Management Activity Plan (2003).

Seven plant species classified as rare in Victoria have been recorded for Altona Coastal Park.

The reserve is considered to be significant principally for its diversity of birds, and usage of the area by migratory waders, many of which are covered by international agreements relating to migratory birds (Japan Australia Migratory Bird Agreement, China Australia, etc). Two bird species listed under the EPBC Act 1999 have been recorded within the Altona Coastal Park, and 28 species considered threatened Nationally (DSE 2003).

Key Threats / Issues

- Rabbit grazing and disturbance particularly along the levee bank on the northern side of Kororoit Creek, and also the levee bank between Kororoit Creek and Cherry Lake
- Weed invasion, with serious weed infestation in saltmarsh vegetation communities and from levee banks into the remnant vegetation communities in the floodplain
- Poor water quality – relatively high contaminant levels in stream bed between creek mouth and Kororoit Creek Road
- illegal trail bike use through the saltmarsh
- dogs off leash in Altona Coastal Park and their impact on wildlife
- unsewered fishing sheds release raw sewage into Kororoit Creek
- upstream impacts on lower Kororoit Creek and potential threat to Jawbone Marine Sanctuary
- coastal edge erosion.

Landscape Character

The mouth of the Kororoit Creek is rich in character. While much of the upstream creek is incised into a generally flat basalt plain, at the estuary the creek is visually more prominent as a wide flood plain.

The rich character of the reach is derived from:

- the open nature of the creek environs, and of the landscape generally;
- the range of vegetation types including wetland, saltmarsh, and mangrove communities;
- the mix of land uses ranging from the Altona fisherman’s huts, the Mobil Refinery, the former Williamstown Racecourse (now part of the Altona Coastal Park) and residential uses; and
- Cherry Lake with its local recreation facilities.

Visual Features

Visual features in this reach are generally long and expansive, especially so at the creek mouth where it meets Port Phillip Bay.

Some of the key visual features that are worth maintaining or enhancing in this reach are:

- Views into the creek corridor from within the Altona Coastal Park.
- Views from road bridges across the creek at Kororoit Creek Road, Millers Road and Racecourse Road.
- Views from the top of the levy bank on the northern edge of Cherry Lake.
- Views of the ruin of the old Williamstown Racecourse grandstand and the Canary Island Palm that signifies the site of the former betting ring, from the elevated northern bank of the creek.
- Views into Altona Coastal Park from Werribee Line trains that travel across the creek corridor.
- Retain Ford crossing as a link to the nature of the creek.



Figure 46: The Bay Trail running through the Altona Coastal Park



Figure 47: The Palm Tree of the Betting Ring from the Old Williamstown Racecourse

Open Space and Trails

Existing Shared Trails

A number of trails exist in this reach. They include:

- Hobsons Bay Coastal Trail, part of the Around the Bay Trail from Westgate Bridge in Spotswood to Skeleton Creek in Altona Meadows
- Shared trail between Cherry Lake and Altona Coastal Park
- Cherry Lake trail loop
- Kororoit Creek Road on-road trail

Shared Trail Opportunities

- Linking the Cherry Lake Loop Trail with a future Kororoit Creek Trail. The trail would need to cross Kororoit Creek Road and the Geelong Railway to ultimately link with the Barnes Road bridge
- Development of an interpretive boardwalk through a section of the mangrove/coastal vegetation on the south side of the Creek.

Shared Trail Issues

- Plotting trail alignment is difficult due to low clearances under the National Rail and Kororoit Creek Rd bridges and the ecological sensitivity of Wide Bend/Rowdens Swamp. Trail may not necessarily be able to follow the exact alignment of the creek.
- Kororoit Creek Road is a busy road used by trucks and heavy transport vehicles and may need to be crossed at grade as part of the future Kororoit Creek Trail.
- Millers Road is also a busy road used by trucks and heavy transport vehicles and is currently crossed at grade as part of the link between Cherry Lake and the Altona Coastal Park.

Existing Open Space

This reach contains some of the most environmentally significant and visually interesting areas of public open space along the creek corridor. This reach is also botanically different from the other reaches because of its tidal nature. Existing areas of open space include:

- Cherry Lake Reserve and its extensive formal parklands, mainly on the southern side of the lake.
- The large rectangular drainage reserve on the eastern side of Millers Road where the trail connection is provided to Altona Coastal Park.
- Fell Reserve, H.C.Kim Reserve and the Melbourne Water drainage reserve on the eastern side of Millers Road, directly opposite Cherry Lake.
- Altona Coastal Park, containing the ruins of the old Williamstown Racecourse grandstand, and the extensive areas of Coastal Saltbush and beach – home to thousands of migratory birds each year.

- J.T.Gray Reserve. A relatively large area of formal ovals and soccer pitches fronting Kororoit Creek Road and backing on to the Creek Corridor. The small fishing village is located between the reserve and the creek corridor. The Bay Trail passes alongside this reserve.
- Just to the east of the creek mouth lies the Paisley Challis Wetlands and the Jawbone Reserve, areas of high visual, environmental and botanical significance where the Bay Trail passes through.

Open Space Opportunities

- Further improvements to Cherry Lake and Cherry Lake Reserve as a major regional recreational node, providing improved parking, open space facilities and connections into the Kororoit Creek Trail system.
- Development of J.T.Gray Reserve as an important link between the Kororoit Creek Trail and the Bay Trail. The reserve could also provide enhanced parkland facilities as well as interpretation/ information about the adjacent conservation areas, and the creek mouth.



Figure 48: The Creek Corridor looking east from Racecourse Road ford



Figure 49: The Bay Trail with the Racecourse Road ford just ahead with Refineries beyond

Open Space Issues

- Environmental sensitivity within the creek estuary and saltmarsh areas. Creek mouth sediments are also highly contaminated.
- Surrounding industrial uses, especially the oil refinery have a dramatic visual impact on the adjoining open space areas.
- Heavy transport routes such as Kororoit Creek Road and Millers Road, as well as the existing railway lines create a strong sense of separation with the various areas of open space.

Figure 50: Looking upstream from near the Creek mouth



Reach Nine Actions

Reach Nine – Altona Coastal / Wetlands (AC)		Lead Agency	Priority
AC1	Undertake projects, as identified in the Melbourne Water Waterway Management Activity Plan covering its reaches 1–2 and as specified in works package 7. Works include: investigation of measures to naturally encourage, or construct, braided channels between Altona rail line and Millers Road; and remnant vegetation management and revegetation throughout. Any construction of braided channels should consider the protection of the galaxid spawning habitat, and the need to manage any potential disturbance of contaminated sediments.	Melbourne Water	Medium
AC2	Manage limited pedestrian and bicycle access to the saltmarsh areas of the Altona Coastal Park through the provision of boardwalks, with appropriate signage.	Hobsons Bay City Council	Medium
AC3	Limit access to Wide Bend, north of the Cherry Lake levy bank to the edges of the area and restrict access to the Wide Bend Wetland area of the creek.	Hobsons Bay City Council	Medium
AC4	Maintain the integrity of the landscape character of the Coastal Park through the following measures: <ul style="list-style-type: none"> • no large visible car parks to be established within sight from the reserve (use existing car parks close to the reserve); • locating new infrastructure to the edges of the creek corridor or on adjacent access roads. 	Hobsons Bay City Council	Medium
AC5	Provide interpretation of the remains of the former Williamstown Racecourse.	Hobsons Bay City Council	Medium
AC6	Undertake an interpretation strategy of migrant settlement history from the 1940s within the Scout Camp and the former Williamstown Racecourse site.	Hobsons Bay City Council	Medium
AC7	Ensure the creation of a safe connection of the Kororoit Creek Trail from the creek north of Kororoit Creek Road through to Cherry Lake. A working party will be established to resolve the alignment of the trail at the National Rail Line, Kororoit Creek Rd and Wide Bend/Rowdens Swamp.	Hobsons Bay City Council State Government	High
AC8	In relation to secondary trail links: <ul style="list-style-type: none"> • investigate the provision of a trail link to Paisley Park Golf Course and on to Newport Lakes via Maddox Road / Challis Drain; • investigate provision of a shared trail link from Cherry Lake to the Mt Joseph Wetlands and the Laverton Creek trail system. 	Hobsons Bay City Council	Medium
AC9	Continue to enhance signage and linkages from the Kororoit Creek Trail to the BayTrail, as part of an overall interpretative / wayfinding system for the linear trail.	Hobsons Bay City Council	Medium
AC10	Establish the former Williamstown Racecourse grandstand area, Cherry Lake and JT Gray Reserve as points of interest within the overall linear park.	Hobsons Bay City Council	Medium
AC11	Investigate health and environmental issues at Kororoit Creek Fishing Village (Boat Sheds) and investigate the future development of the Scout Camp as an ‘urban camp’.	Hobsons Bay City Council	Medium
AC12	Undertake an investigation of the coastal geomorphology of the Altona Coastal Park, including coastal erosion processes, the importance of stream flows from Kororoit Creek and sedimentation issues at the mouth of Kororoit Creek, to determine how best to protect the geomorphology of Altona Coastal Park and Jawbone Marine Sanctuary and manage erosion. Due to the presence of heavy metals in sediment from previous pollution of the creek the EPA has advised that the mouth of the Kororoit Creek should not be dredged.	Hobsons Bay City Council	High

Figure 51: Looking east across Wide Bend



Waterway issues

Planning Unit 9 **Altona Coast/Wetlands**
Stream Character - Broad shallow flood channel with deeper low flow path dominated by its estuary
Water Quality Issues - Contaminated substrate sediments from years of unauthorised disposal of toxic material
Water Quantity Issues - No significant water quantity issues identified
Stream Management Issues - No significant stream management issues identified

KEY - ecologically significant sites/zones

Site	Sec.	Description
1	9	Cherry Lake - moderate fauna and flora values. EVC's 104 Lignum wetland, 603 Aquatic herbland, 605 Estuarine wetlands Estuarine swamp scrub mosaic
55	9	Creek mouth - one of the few remaining coastal wetlands as well as an important bird habitat, nesting and breeding area.
60	9	Coastal saltmarsh
63	9	Shrubby Grasswort and Beaked Grasswort herbfield complex
68	9	Estuary sector - mangrove & saltmarsh

KEY - geomorphologically significant sites/zones

Site	Sec.	Description
15	9	Valley profiles

KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 9 (Coast / Wetlands)
NATURAL SYSTEMS & HERITAGE ANALYSIS
 Drawing No. LSP 18

Prepared for The Department of Sustainability and Environment by
 Land Design Partnership Pty Ltd and Team
 September 2005



LEGEND

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LEGEND

Kororoit creek course	railway lines	existing trail alignments	existing transmission line alignments
Kororoit ck. tributaries	significant urban creek crossing points	key regional attractions / destinations	key regional attractions / destinations
wetlands as marked	proposed future trail alignments	significant regional sites	open space/parkland

KOROROIT CREEK STRATEGIC PLAN 2005 - 2030
 Reach No. 9 (Coast / Wetlands)
LINEAR PARKLAND & TRAIL ISSUES AND OPPORTUNITIES
 Drawing No. LSP 06

north

0 0.5 1.0 1.5 2.0 2.5
 SCALE: (9m:1)

Prepared for The Department of Infrastructure by
 Land Design Partnership Pty Ltd and Team
 September 2005





LEGEND

-  Existing Creek Alignment
-  Possible Future Lineal Trail Alignment
-  Existing Lineal Trail
-  Existing and Proposed Secondary Trail Links
-  Proposed Recreation Nodes, comprising:
 - * Access to the Creek Corridor and the future lineal shared trail system
 - * Public Open Space development
 - * Car parking areas; and
 - * Visitor Amenities.

KOROROIT CREEK STRATEGIC PLAN 2005-2030
 Reach No. 9 (Altona Coastal)
PROPOSED SHARED TRAIL and LINEAR PARKLAND
 Drawing No. LST 06

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3. Implementation

The emergence of a number of recent initiatives suggests there is a greater long-term commitment to improvements along the Kororoit Creek corridor, which have the potential to contribute to creek restoration programs.

These include:

- creek corridor landscape planning within Hobsons Bay, including trail planning being undertaken through the Kororoit Creek Landscape Masterplan (Geelong Rd to Cherry Lake);
- planting works by the Friends of Lower Kororoit Creek (including partnerships with industry), Friends of Kororoit Creek, and Friends of Altona Coastal Park;
- an imminent Master Plan by the City of Brimbank;
- ongoing works by Melbourne Water specifically guided by the Waterway Management Activity Plan with strategic support offered by the Port Phillip and Westernport Regional River Health Strategy.

It is recognised that ongoing investment will be required to arrest the degradation of the Kororoit Creek corridor. Urban and rural implementation projects will need to be identified and prioritised by lead agencies. The timing for implementation will be subject to lead agency forward planning, budgetary processes and grant programs.

The Local Councils adjacent to the Kororoit Creek have identified the need for a grants program, to facilitate additional master planning for discrete areas of open space, to better assist the completion of the Kororoit Creek Trail, and to enable more rapid and comprehensive implementation of the recommendations of the strategy.

The Steering Committee established to prepare the Kororoit Creek Regional Strategy 2005–2030 has included representatives from Victorian Government agencies and Local Government. This coordinated approach has established the groundwork for future management and implementation of the Kororoit Creek Regional Strategy.

Future implementation initiatives that would benefit from this planning process include:

- introducing a coordinated and complementary planning policy for all municipalities for the length of Kororoit Creek (DSE could support this process by coordinating the Planning Scheme Amendment process with Local Councils);
- coordinating trail planning to progressively complete the trail gaps across affected municipalities;
- integrated weed management programs, for Local Councils and affected land owners;
- coordinating priorities for creek corridor management across key funding agencies, so that programs are complementary and opportunities for value-adding are identified;
- increased emphasis on treating the creek corridor as one continuous natural asset with a uniform approach to rehabilitation, provision of recreation facilities and other assets such as signage;
- shared information and knowledge, potentially leading to more effective use of resources;
- increased focus on building community support and ownership of creek corridor improvements and on supporting peak groups, such as Friends Groups over the medium to long term; and
- preparation of joint funding submissions for grants for creek corridor initiatives.

Implementation of the Kororoit Creek Regional Strategy will require the development of a monitoring and review process. The details of this process will be agreed between all agencies responsible for the management and implementation of the Kororoit Creek Regional Strategy.

It is recommended that each agency undertake their own annual review of actions assigned to them under the Strategy, to ensure achievement of actions and assist budget allocations for priority projects. The designated management framework will be responsible for monitoring the implementation of actions identified in the strategy.

The management framework will be determined by key stakeholders working together, and will be convened by the Department of Sustainability and Environment.