

Lower Stony Creek Corridor Revegetation Plan

Final Draft for Comment



*A Plan to Guide Works by Melbourne Water and Maribyrnong City
Council from Sunshine Road to Hyde Street*

2005



Table of Contents

1. The Stony Creek Catchment	2
2. Study Area.....	3
3. Background	4
4. Condition of the Stony Creek Corridor.....	6
5. Vegetation Condition & Revegetation Styles	7
5.1 Vegetation Along the Stony Creek Corridor.....	7
5.2 Revegetation Styles.....	7
6. Target Areas for Revegetation	11
6.1 Melbourne Water Perspective	11
6.2 Maribyrnong City Council Perspective.....	12
7. Draft Recommendations.....	13

List of Figures

<i>Figure 1: Stony Creek catchment.....</i>	<i>2</i>
<i>Figure 2: Stony Creek Revegetation Study Area.....</i>	<i>3</i>
<i>Figure 3: Revegetation Site 1 – Railway Line to Hyde Street.....</i>	<i>14</i>
<i>Figure 4: Revegetation Site 2a – Downstream of Sommerville Road to Graingers Road Main Drain outfall</i>	<i>15</i>
<i>Figure 5: Revegetation Site 2b – Graingers Road Main Drain to Austin Crescent</i>	<i>16</i>
<i>Figure 6: Revegetation Site 3 – Downstream of Paramount Road to Cala Street.....</i>	<i>17</i>
<i>Figure 7: Revegetation Site 4 – Railway line downstream of Sunshine Road to Sara Grove</i>	<i>18</i>
<i>Figure 8: Revegetation Site 5 – Cruickshank Park upstream of Francis Street</i>	<i>19</i>

Cover Photo: Stony Creek, Yarraville - looking upstream to the Westgate Golf Course from a point midway between Hyde Street and the railway line.

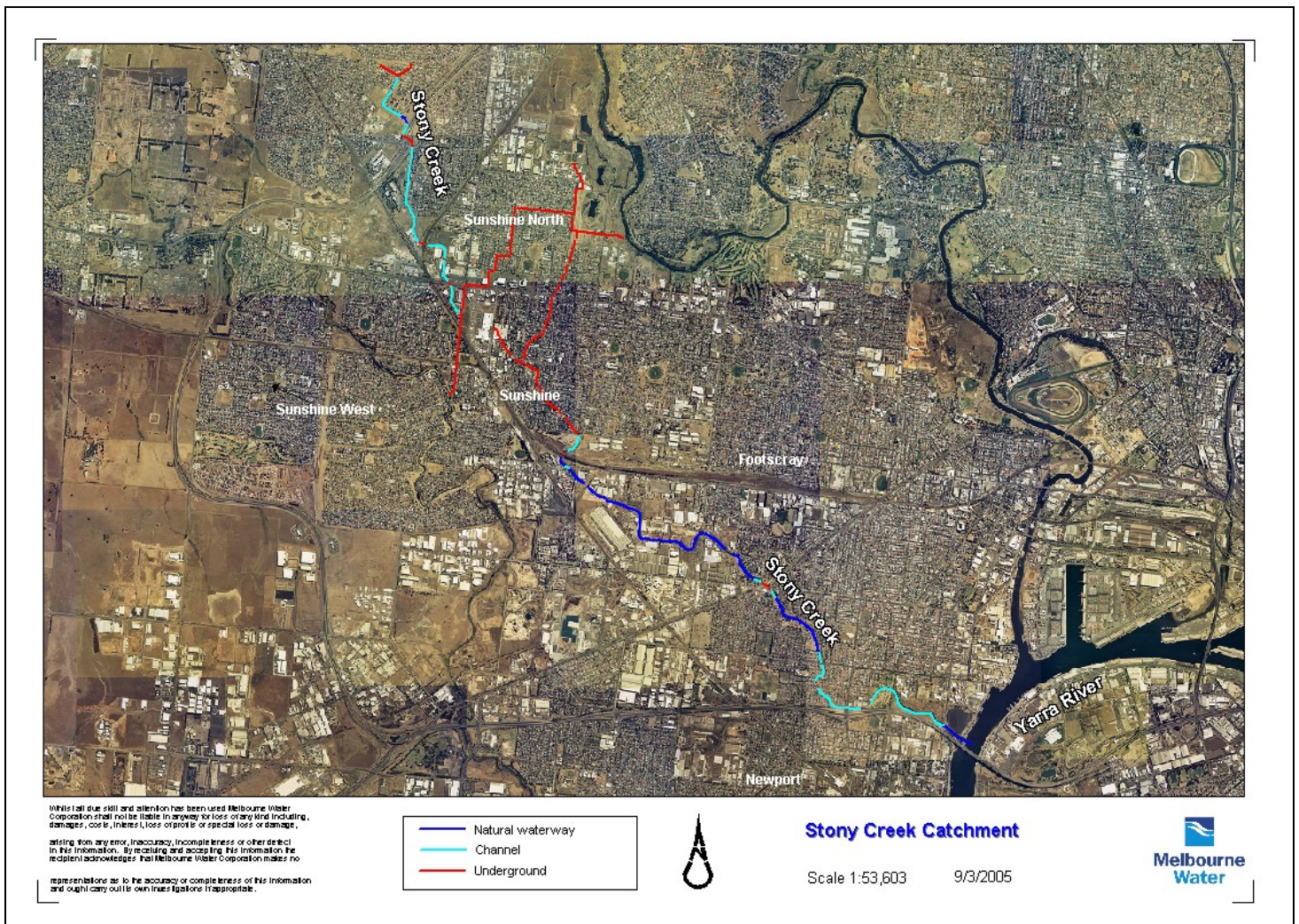
1. The Stony Creek Catchment

Stony Creek first forms a defined waterway in the St. Albans area and thereafter crosses a number of Melbourne’s inner western industrial areas and residential suburbs before entering the Yarra River just downstream of its confluence with the Maribyrnong River. The upper catchment of the stream is diverted to Kororoit Creek in Sunshine and numerous sections are piped, with some open channel sections concrete-lined.

Stony Creek is 8 kilometres in length and travels through three municipalities – Brimbank, Maribyrnong and Hobsons Bay.

Given its highly urbanised context, it is reasonable to assume that groundwater flows have been significantly reduced and that flows in Stony Creek are sustained predominantly from urban stormwater and discharges from the piped drainage system. Some of the major drains from the catchment connecting to Stony Creek include the Francis Street Main Drain and Graingers Road Main Drain.

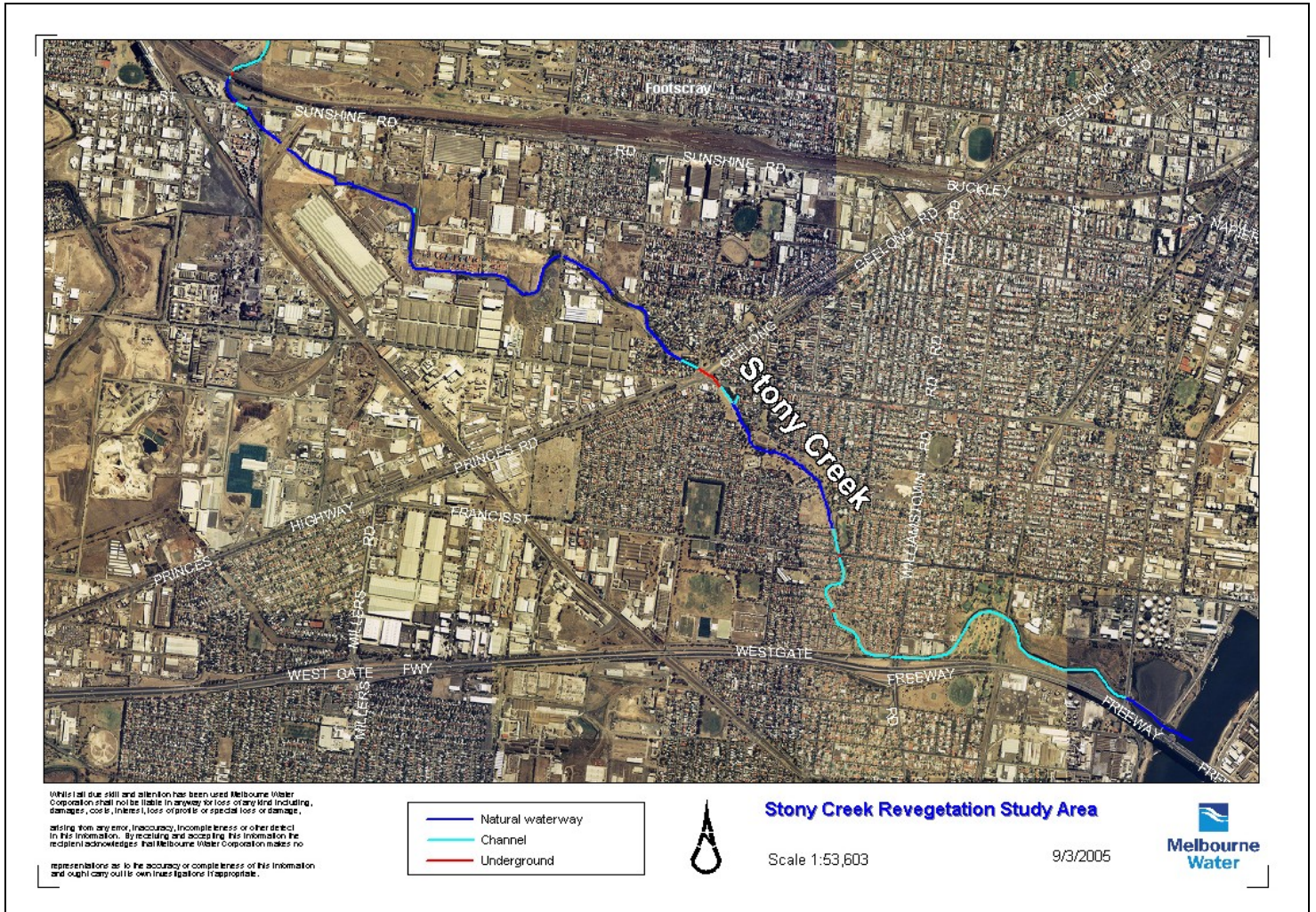
Figure 1: Stony Creek catchment



2. Study Area

The study area for this plan is entirely within the City of Maribyrnong, ie. from Sunshine Road in Tottenham to Hyde Street in Spotswood. The City of Hobsons Bay has a common boundary along the frontage to the Westgate Golf Course and downstream to Hyde Street.

Figure 2: Stony Creek Revegetation Study Area



3. Background

Previous Studies

Stony Creek Project Directions Plan (*Urban Initiatives, July 1999*)

This study, commissioned by Maribyrnong City Council, generated a Parklands Plan for the Stony Creek within the City of Maribyrnong and provides broad guidance about open space development along the corridor. The Plan produced detailed plans for all sections of the creek corridor except the Tottenham Industrial Precinct. This was excluded due to a number of reasons including complicated private land ownership issues and difficulty of access.

Cruickshank Park Master Plan (*Urban Initiatives, 1999*)

This plan, based on a map produced by Urban Initiatives (1999), focuses on increasing planting around the edges of the park and along the shared pathway and creek corridor. The plan also focussed on the construction of a path network around Cruickshank Park. This has now largely been completed.

Natural Heritage Study (*Ecology Australia and Environmental Geosurveys, 1999*)

The City of Maribyrnong Natural Heritage Study documents significant sites of remnant vegetation. Parts of the Stony Creek corridor have been identified as sites of flora and fauna significance at a local level. The riparian vegetation identified along the stream corridor includes Striped Wallaby-grass, Bristly Wallaby-grass, Slender Knotweed, Water Pepper, Common Reed, Kangaroo Grass and Cumbungi. These species are not considered rare. A large number of weed species also exist in the study area. Faunal species that may possibly have potential habitat along the Stony Creek corridor include the regionally significant Water Rat and the Growling Grass Frog. While not specifically identified in the study area, the Growling Grass Frog is known to be able to survive in a wide range of modified aquatic environments.

Neighbourhood Environment Improvement Plan (NEIP) for Lower Stony Creek Corridor (*Maribyrnong City Council, 2004*)

In February 2004 a NEIP was adopted for the lower Stony Creek corridor. The study area was defined as those sections of Stony Creek downstream of the diversion drain to Kororoit Creek in Sunshine. The Plan examined a number of issues including improvements to runoff from industrial areas, increased litter trapping in the catchment and implementation of various initiatives from municipal Stormwater Management Plans.

A key recommendation of the NEIP was to develop a Stony Creek corridor revegetation strategy within the City of Maribyrnong – hence the preparation of this document.

The NEIP also recommended the protection of remnant salt marsh in Stony Creek Reserve, west of Hyde Street, by ensuring the integrity of fencing, undertaking weed control and investigating options for hydraulic controls to enable periodic flooding of the area to promote salt marsh regrowth.

Draft Regional River Health Strategy (Melbourne Water and Port Phillip CMA, 2004)

The Regional River Health Strategy (RRHS) was developed between 2002-2004 in conjunction with a broad range of stakeholders including the Department of Sustainability & Environment (DSE), Department of Primary Industries (DPI), EPA Victoria, Southern Rural Water, Environment Victoria, the Port Phillip and Westernport Catchment Management Authority and the West Gippsland Catchment Management Authority. Melbourne Water, as the primary waterway manager for the area, played a lead role in the development of the RRHS.

A draft of the RRHS was available for comment during early 2005, with the final document to be completed around mid 2005. A fundamental element of the RRHS is Melbourne Water's Waterway Objective for its current operational area. This objective is to have all of Melbourne's natural waterways in good or better condition by 2025. The objective complements other key Melbourne Water waterway management objectives namely, reducing nitrogen inputs to Port Phillip Bay from the stormwater system by 100 tonnes a year by 2010 and a commitment to working with the community and key stakeholders to protect and improve waterways.

The process of identifying priority waterways and actions in the RRHS was based on the Australian Standard for Risk Management (AS/NZS 4360:1999). Within this framework, 'risk' refers to a measure of the likelihood and consequence of waterway failure, or loss of significant environmental, social and economic values.

Waterway management priorities in the RRHS were determined by:

- reviewing stream health data and information;
- identifying environmental, social and economic values; and
- defining management actions to address threats to these values.

Priorities identified in the RRHS strategy were:

- protection of waterways with existing high values or those that are in good condition;
- rehabilitation of waterways where there is the greatest potential for environmental and community gain for the resources invested; and
- rehabilitation of waterways where there is a high level of community commitment.

To assist in the development and allocation of management priorities across the entire Port Phillip and Westernport region, streams were divided into a hierarchy of management areas, namely:

- 'Main Catchment' - the highest level of division (ie. Werribee, Maribyrnong, Yarra, Westernport and Dandenong);
- 'Management Unit' - essentially major waterway systems or a group of small adjacent waterways that have similar characteristics; and
- 'Sub Management Units' - the smallest unit - there are a total of 167 Sub Management Units identified in the RRHS and these areas were allocated based on similarity in relation to river processes, hydrology, environmental condition and potential waterway management activities.

The documentation of management activities focuses on each Sub Management Unit, with some region-wide priorities and actions also identified. Actions are divided into very high and high priorities that become the focus for the first 5 years of Strategy implementation, with moderate to low priorities being the focus for the following 15 years.

Stony Creek is within the main catchment of Maribyrnong River and the draft RRHS indicates that it has very poor current condition, yet a very high social value based on values associated with shared paths and open space. A lift in vegetation quality from very poor to poor is proposed in the next five years under the draft RRHS and preparation of this plan is seen as part of that process.

4. Condition of the Stony Creek Corridor

While it is not the purpose of this document to detail the condition of Stony Creek and its water quality, it needs to be recognised that although water quality data for Stony Creek is drawn from only one permanent site and is therefore limited, it can be said that Stony Creek at Yarraville is one of the poorest quality urban waterways within the Melbourne area. Although many water quality parameters do not meet State Environment Protection Policy objectives, nutrients, *E. coli* and zinc are frequently elevated. Dissolved oxygen levels are also an issue at times – most likely due to periods of excessive algal growth.

In addition, historical data shows that regular incidents of pollution have occurred in Stony Creek. Since 1996, Polwatch has recorded approximately 100 complaints associated with Stony Creek. Complaints data are mainly comprised of incidents reported to the EPA from the general public and consequently not every incident that occurs is reported. Since 1993 EPA Victoria has also launched 18 prosecutions for pollution of Stony Creek from industries and road spills.

In addition, Melbourne Water uses the Index of Stream Condition (ISC) to monitor the environmental condition of waterways. The Department of Sustainability and Environment developed the index with the intention of providing a high-level reporting process on the state of Victorian streams. The ISC is designed to provide an overall integrated measure of the environmental condition of streams. It amalgamates information on the naturalness of the flow regime, water quality, condition of the channel and riparian zone and the invertebrate communities living in the stream. The ISC was developed as a tool for waterway managers to benchmark waterway condition, assess the long-term effectiveness of rehabilitation programs and to set priorities to target resources. Melbourne Water has modified the index methodology to incorporate relevant data for the urbanised context of some catchments and to include extra monitoring data available for water quality.

Stream condition is allocated to one of five classifications: very poor, poor, moderate, good or excellent, according to the overall score awarded to the waterway. According to the ISC assessment, Stony Creek has been accorded an overall condition of ‘very poor’, with a value of only 3 out of 10 awarded for the sub-index ‘streamside vegetation.’

5. Vegetation Condition & Revegetation Styles

5.1 Vegetation Along the Stony Creek Corridor

The environment along the Stony Creek Corridor has been assessed by Ecology Australia in the Maribyrnong City Council Natural Heritage Study (2001). The Stony Creek Corridor is highly degraded because of long-term industrial uses, diversions, vegetation clearing, filling of floodplains and earthworks. There are few areas of indigenous flora and fauna along the corridor and pests such as rabbits as well as numerous weed species invade many areas along the stream corridor.

A scattering of indigenous vegetation occurs along Stony Creek where it traverses the southern third of the Maribyrnong municipality (ie. downstream of Westgate Golf Course). Here a section of Saltmarsh Complex vegetation exists along the fringes of Stony Creek from the railway line to Hyde Street. This area also supports one of the best quality habitats along the stream corridor, with the area providing habitat for frogs, snakes and a variety of waterbirds – including bird species of Regional and State significance. These species include the Royal Spoonbill (*Platalea regia*) and the Great Egret (*Ardea alba*).

5.2 Revegetation Styles

Melbourne Water is moving towards the adoption of revegetation styles based on modified EVC communities.

While original plant communities serve as a strong guide to plant selection in rural streams, waterway revegetation in modified urban streams requires adaptation and modification of those original communities to achieve results compatible with sound waterway rehabilitation and management of longer term maintenance costs.

Urban environments present a range of constraints which revegetation design is required to take into account. For example, increased impervious areas within the catchment and loss of natural floodplains means that stream channels are required to transmit greater flows. At a number of points these flows need to be transitioned through critical culverts associated with major road crossings. In order to preserve the integrity of the culverts it is important that nearby vegetation does not provide a means by which any large wood debris or large quantities of vegetative trash can accumulate against the bridge structure, either closing down the opening or in extreme cases, threatening the structure itself due to the weight of “trapped” water. For these reasons dense shrubby vegetation capable of trapping vegetative trash is not recommended either upstream or downstream of critical culverts.

Weed invasion is also common to many urban waterway environments with propagules either washed downstream to lodge at new sites, or soil stored weed seed providing ready sources of replenishment for weed growth. Added to these factors, flood events are also capable of varying levels of disturbance of stream banks and revegetation can consequently be difficult to establish in stream margin zones.

The sheer extent of urban waterways requiring rehabilitation compared to available funds also means that maintenance issues and costs must be factored into revegetation

design. If medium to longer-term maintenance costs are to be managed, revegetation design must be capable of delivering sites which have relatively low maintenance inputs over the period until a significant re-set may be required. This should be considered to be a 20 year timeframe as a minimum, but may vary according to seasonal conditions and site limitations.

The extent of re-set at that time might also vary considerably across sites. In some instances it may be minimal. In other cases available soil moisture and generally unfavourable seasonal and site conditions, including flood disturbance, may have constrained vegetation health significantly, thus resulting in significant re-set.

A further factor influencing re-set will be fire dependency of the local flora – it is genetically designed to have maximum vigour under regimes of regular burning. Much of the flora is almost disposed to a decline in vigour, with many grass species displaying such a characteristic to a greater degree than other plant forms. While design should account for this and minimise those species displaying most change in structure over time, the reality is that some re-set of revegetation areas should be anticipated and planned for. Like all life forms, plants are not static entities and keep changing either by way of growth, or decline, over time. This requires accounting for with realistic maintenance and cyclical capital investment programs to match.

Taking into account these constraints of urban environments and limitations of the local flora, urban waterway revegetation must be undertaken using a selection of the most robust species capable of tolerating disturbance and performing without excessive structural change over time. Melbourne Water has modified a range of EVC communities to meet these needs. The most widely applicable EVC for Stony Creek is Creekline Grassy Woodland. The modified EVC seeks to use groundstorey species as the predominant vegetation layer with occasional overstorey and patches of shrubs. This will help mimic the appearance of the sparsely wooded plains of the original flora as well as address flood management issues and ensure good light penetration throughout the life of the revegetation to guard against invasion by shade-tolerant species such as *Tradescantia* and other species commonly found along waterways where revegetation has been undertaken using mainly trees and shrubs.

The following species list has been prepared by Melbourne Water as the modified EVC for a Creekline Grassy Woodland community and would be suitable for application along the Stony Creek corridor.

TREES

<i>Eucalyptus camaldulensis</i>	River Red Gum
---------------------------------	---------------

SMALL TREES/ LARGE -MEDIUM SHRUBS

<i>Acacia melanoxylon</i>	Blackwood
<i>Bursaria spinosa ssp. spinosa</i>	Sweet Bursaria
<i>Melicytus dentata (formerly Hymenanthera dentata)</i>	Tree Violet
<i>Meuhlenbeckia florulenta</i>	Tangled Lignum

RUSHES, SEDGES, HERBS & GROWDCOVERS

<i>Acaena novae zelandiae</i>	Bidgee widgee
<i>Carex appressa</i>	Tall Sedge
<i>Carex bichenoviana</i>	Plains Sedge
<i>Carex tereticaulis</i>	Rush Sedge
<i>Isolepis nodosa</i>	Knobby Club-rush
<i>Juncus amabilis</i>	Hollow Rush
<i>Juncus flavidus</i>	Yellow Rush
<i>Lomandra longifolia ssp. longifolia</i>	Spiny headed Mat rush
<i>Mentha australis</i>	River Mint
<i>Poa labillardierei var. labillardierei (in discrete patches on creek terraces only)</i>	Common tussock grass
<i>Rubus parvifolius</i>	Small-leaf Bramble
<i>Selliera radicans</i>	Swampweed
<i>Veronica gracilis</i>	Slender Speedwell

Where the above list is used in revegetation projects which also include drier terrestrial components, some cross over with the modified EVC list for Escarpment Shrubland (see below) would be advisable.

TREES

<i>Allocasuarina verticillata</i>	Drooping Sheoke
-----------------------------------	-----------------

SMALL TREES/ LARGE -MEDIUM SHRUBS

<i>Acacia implexa</i>	Lightwood
<i>Acacia pycnantha</i>	Golden Wattle
<i>Bursaria spinosa ssp. spinosa</i>	Sweet Bursaria
<i>Clematis microphylla</i>	Small-leaved Clematis
<i>Correa glabra var. glabra</i>	Rock Correa
<i>Eremophila deserti</i>	Turkey-bush
<i>Grevillea rosmarinifolia ssp. rosmarinifolia</i>	Rosemary grevillea
<i>Melicytus dentata</i>	Tree Violet
<i>Melicytus sp. aff. dentatus (Volcanic Plain variant)</i>	Dense Shrub-violet
<i>Rhagodia parabolica</i>	Mealy Saltbush

RUSHES, SEDGES, HERBS & GROWDCOVERS

<i>Acaena novae-zelandiae</i>	Bidgee Widgee
<i>Carex appressa</i>	Tall Sedge
<i>Dianella admixta</i>	Black-anther Flax-lily
<i>Dianella longifolia</i>	Pale Flax-lily
<i>Dichondra repens</i>	Kidney Weed
<i>Einadia nutans subsp. nutans</i>	Nodding Saltbush
<i>Enchylaena tomentosa</i>	Ruby Saltbush
<i>Lomandra longifolia ssp. longifolia</i>	Spiny-headed Mat-rush

The lower reaches of Stony Creek also has components of saltmarsh vegetation upstream of Hyde Street. These communities can often be remarkably resilient and are probably subject to weed invasion from a narrower range of species due to their saline conditions. Often the simple removal of human related disturbance can be enough to permit vigorous regeneration. Should revegetation be required, the modified EVC which Melbourne Water would use in this the saltmarsh areas of lower Stony Creek includes species as below.

SHRUBS

<i>Atriplex paludosa ssp. paludosa (W)</i>	Marsh Saltbush
<i>Avicennia marina ssp. australasica (W)</i>	White Mangrove
<i>Halosarcia pergranulata ssp. pregranulata (D)</i>	Black-seed Glasswort
<i>Halosarcia halocnemoides ssp. halocnemoides (D)</i>	Grey Glasswort
<i>Sclerostegia arbuscula (W)</i>	Shrubby Glasswort

GRASSES, RUSHES, SEDGES & DICOT HERBS

<i>Apium prostratum ssp. prostratum s.l. (W)</i>	Sea Celery
<i>Atriplex cinerea</i> +	Coast saltbush
<i>Disphyma crassifolium subsp. clavellatum (W/D)</i>	Rounded Noon-flower
<i>Distichlis distichophylla (W/D)</i>	Australian Salt-grass
<i>Frankenia pauciflora var. gunnii (W/D)</i>	Southern Sea-heath
<i>Gahnia filum (W/D)</i>	Chaffy Saw sedge
<i>Hemichroa pentandra (W/D)</i>	Trailing Hemichroa
<i>Juncus kraussii ssp. australiensis (W)</i>	Sea Rush
<i>Lawrenzia spicata (W/D)</i>	Salt Lawrenzia
<i>Limonium australe (W)</i>	Yellow Sea-lavender
<i>Lobelia irrigua (W/D)</i>	Salt Pratia
<i>Mimulus repens (W/D)</i>	Creeping Monkey-flower
<i>Poa poiiformis var. poiiformis</i> ^	Coast Tussock-grass
<i>Puccinellia stricta var. stricta / var. perlaxa (W/D)</i>	Australian Saltmarsh-grass
<i>Samolus repens (W/D)</i>	Creeping Brookweed
<i>Sarcocornia blackiana (W)</i>	Thick-head Glasswort
<i>Sarcocornia quinqueflora ssp. quinqueflora (W/D)</i>	Beaded Glasswort
<i>Selliera radicans (W/D)</i>	Shiny Swamp-mat
<i>Sporobolus virginicus (D)</i>	Salt Couch
<i>Suaeda australis (W/D)</i>	Austral Seablite
<i>Triglochin stratum s.l. (W/D)</i>	Streaked Arrowgrass
<i>Wilsonia humilis (D)</i>	Silky Wilsonia
<i>Wilsonia rotundifolia (W/D)</i>	Round-leaf Wilsonia

W = Wet or lower saltmarsh occurring throughout the geographic range of coastal saltmarshes and is characterised by the presence of *Sclerostegia arbuscula*.

D = Dry or upper saltmarsh occurring in low-rainfall areas within the c.600mm or less rainfall isohyet. In the Port Phillip region dry Saltmarsh occurs only to the west of Melbourne and is characterised by the presence of *Halosarcia pergranulata ssp. pergranulata* and *H. halocnemoides ssp. halocnemoides* in the elevated parts of the saltmarsh.

6. Target Areas for Revegetation

6.1 Melbourne Water Perspective

At this point in time, the following areas are being considered by Melbourne Water as a focus for possible works over the next 5-15 years.

Site 1 - Railway Line to Hyde Street (Fig. 3). Melbourne Water works would focus on the area of land in its ownership, i.e. the saltmarsh. Improvements to the fencing should permit greater regeneration of the saltmarsh. Some minor hand-weeding may also assist saltmarsh regeneration. Supplementary revegetation could be considered once the saltmarsh has recovered to a greater extent. This may be required to achieve linking to adjacent Council works.

Site 2a - Downstream of Sommerville Road to Graingers Road Main Drain outfall (Fig. 4). This revegetation site may eventually extend to the footbridge at Austin Crescent West, but initially just to the Melbourne Water Graingers Road Main Drain outfall. Most of the revegetation work would be on the west side as previous revegetation work has been undertaken on the east side above the top of the bank. Planting would attempt to re-establish the riparian fringe and revegetate areas disturbed by minor earthworks immediately downstream of the culverts at Sommerville Road.

Site 2b - Graingers Road Main Drain outfall to footbridge at Austin Crescent West (Fig 5). Revegetation at this site would follow removal of Desert Ash and other species considered to be detrimental to rehabilitation of the waterway corridor through this section, as well as any necessary minor bank re-shaping. Preparation of design prior to works would include extensive consultation with stakeholders, eg. Maribyrnong City Council, Friends of Cruickshank Park, Friends of Stony Creek etc.

Site 3 - Downstream of Paramount Road to Cala Street (Fig. 6). Melbourne Water owns some land on the south side of the stream and previous revegetation has been done in this vicinity. The intention here would be to do an initial maintenance run to remove tree guards and tidy up the planted areas – which are in reasonable condition. Later works would join up revegetation areas where mowing between beds is inconvenient, cull and thin unsuitable plants and undertake supplementary revegetation with understorey species to make the planting more sustainable. Some beds could be extended to the stream with aquatic planting included. There is a reasonable amount of work to be done here to adjust and extend previous revegetation. However, due to low public profile and use, it is not considered to be the most urgent priority.

Site 4 - Downstream of Sunshine Road to Sara Grove (Fig. 7). This site is in a similar category to Site 3, in that it has limited public access and use. However, it does present a viable longer-term opportunity for future revegetation to supplement past tree planting along the area between factories and the stream.

6.2 Maribyrnong City Council Perspective

Opportunities for revegetation on the Lower Stony Creek are fairly limited, but the following sites offer some opportunity for works.

1. Hyde Street/Stony Creek Reserve - this is a 10 ha. site from the railway line downstream to Hyde Street. The site is highly modified and was used as a landfill site for some time. Soil conditions are largely unknown. There are some low level contaminants on site, but these do not preclude community planting. Part of the eastern section was originally part of the Stony Creek Backwash, but was filled in at the time of construction of Hyde Street.

The site has been planted at the two entrances, with a variety of local species. A range of trees and midstorey shrubs are surviving well on these two sites. Continued rabbit control is vital to ensure the viability of these and future plantings.

The approach to future planting on the site has been agreed between the Friends of Stony Creek and Maribyrnong City Council. Scattered tree plantings will be developed from the end of Beverley Street to the Hyde Street plantings. The following species are recommended for inclusion: *Bursaria spinosa*, *Allocasuarina verticillata*, *Eucalyptus microcarpa*, *Acacia implexa*, *Dodenea viscosa ssp. spatulata*.

Revegetation opportunities exist for the lower saltmarsh area and the higher slopes. Saltmarsh areas near Stony Creek have remnants of *Suaeda*, *Halosarcia*, *Disphyma* which could be extended. Plantings of *Atriplex cinerea*, *Juncus pauciflorus*, *Rhagodia candolleana* have been successful. Soil stored seed of *Suaeda* have regenerated as a result of exotic grass spraying and jute mat laying. *Ghania filum* has not succeeded in this site.

Grey mangroves are successfully establishing on the mudflats of the lower Stony at Hyde Street. Protection of mudflats from vehicle damage could assist in the re-establishment of saltmarsh species. The drier slopes have benefited from plantings of Acacias, Allocasuarinas and Eucalypts. Correas have performed well at street entrances.

2. Cruickshank Park - is a large area of linear parkland following Stony Creek from Somerville Road to Francis Street. The edges of the stream are often weed infested and areas beyond the top of the bank within Cruickshank Park are generally mown exotic grass with informal plantings of mostly established trees and shrubs.

At the southern end of the Cruickshank Park, the Francis Street entrance may lend itself to further plantings to screen the concrete channel. This would occur on the west side of Stony Creek (Figure 8).

3. Other Sites - land upstream of Paramount Road is in private ownership and provides little opportunity for revegetation works. The Sara Grove area has some potential for enhancement of the entry to Stony Creek at that point with minor revegetation work, perhaps complementing any revegetation work Melbourne Water undertakes on its land along the north side of the stream.

7. Draft Recommendations

As Melbourne Water and Maribyrnong City Council have different management responsibilities within the Stony Creek corridor, it is to be expected that priorities and approaches will differ. However, there is sufficient similarity between objectives that the following priorities can be put forward as a set of draft priorities for comment.

Recommendation 1:

Melbourne Water and Maribyrnong City Council continue to work cooperatively to assess and monitor proposals for complementary revegetation works along the Stony Creek corridor.

Recommendation 2:

Melbourne Water and Maribyrnong City Council to develop work plans for undertaking revegetation or vegetation protection at the following priority sites within the next 10-15 years, recognising that, depending on the site and the extent of management responsibility, each organisation may need to prepare separate (yet hopefully complementary) plans covering agreed works.

(i) Railway Line to Hyde Street

Melbourne Water to focus on saltmarsh regeneration through improved fencing and monitoring of saltmarsh vigour. Maribyrnong City Council to undertake continued revegetation of inland terrestrial areas to achieve a park setting for the reserve.

(ii) Cruickshank Park

Melbourne Water to undertake stream bank rehabilitation and revegetation from Somerville Road to the Graingers Road Main Drain as a first stage and downstream to the footbridge as a later stage. Potential exists for Council to apply for funding under Melbourne Water's Corridors of Green Program should it determine that value could be added in undertaking minor complementary revegetation of terrestrial zones downstream of Somerville Road to screen adjacent views thereby improving park amenity. Council will also examine the potential for screening of the concrete channel through some revegetation to the west of Stony Creek immediately upstream of Francis Street. These works would enhance the southern entrance to Cruickshank Park.

(iii) Paramount Road to Cala Street

Melbourne Water to undertake clean-up, minor revegetation to extend previous revegetation and expansion of the riparian zone on the south side of stream over a distance of approximately 200 metres upstream of Cala Street.





(iv) Downstream of Railway Line to Sara Grove

Melbourne Water to undertake supplementary revegetation on land it owns on the north side of Stony Creek. This may involve some additional overstorey to improve screening of the factory walls, plus some possible understorey sedge plantings to reduce grass cutting. Maribyrnong Council works would be confined to minor planting around the Sara Grove entry to Stony Creek.

Figure 3: Revegetation Site 1 – Railway Line to Hyde Street



Whilst all due skill and attention has been used Melbourne Water Corporation shall not be liable in anyway for loss of any kind including, damages, costs, interest, loss of profits or special loss or damage, arising from any error, inaccuracy, incompleteness or other defect in this information. By receiving and accepting this information the recipient acknowledges that Melbourne Water Corporation makes no representations as to the accuracy or completeness of this information and ought carry out its own investigations if appropriate.

-  Site 1 boundary
-  Melbourne Water planned works
-  Council planned works
-  Council completed works



Site 1 - Railway line to Hyde Street




Scale 1:2,299

21/02/2005

Figure 4: Revegetation Site 2a – Downstream of Sommerville Road to Graingers Road Main Drain outfall



Whilst all due skill and attention has been used Melbourne Water Corporation shall not be liable in anyway for loss of any kind including, damages, costs, interest, loss of profits or special loss or damage, arising from any error, inaccuracy, incompleteness or other defect in this information. By receiving and accepting this information the recipient acknowledges that Melbourne Water Corporation makes no representations as to the accuracy or completeness of this information and ought carry out its own investigations if appropriate.

-  Site 2a boundary
-  Melbourne Water planned works
-  Graingers Road M.D.



Site 2a - Downstream of Sommerville Road to Graingers Road M.D outfall




Scale 1:549

21/02/2005

Figure 5: Revegetation Site 2b – Graingers Road Main Drain to Austin Crescent



Whilst all due skill and attention has been used Melbourne Water Corporation shall not be liable in anyway for loss of any kind including, damages, costs, interest, loss of profits or special loss or damage arising from any error, inaccuracy, incompleteness or other defect in this information. By receiving and accepting this information the recipient acknowledges that Melbourne Water Corporation makes no representations as to the accuracy or completeness of this information and ought carry out its own investigations if appropriate.

-  Site 2b boundary
-  Melbourne Water planned works
-  Graingers Road M.D

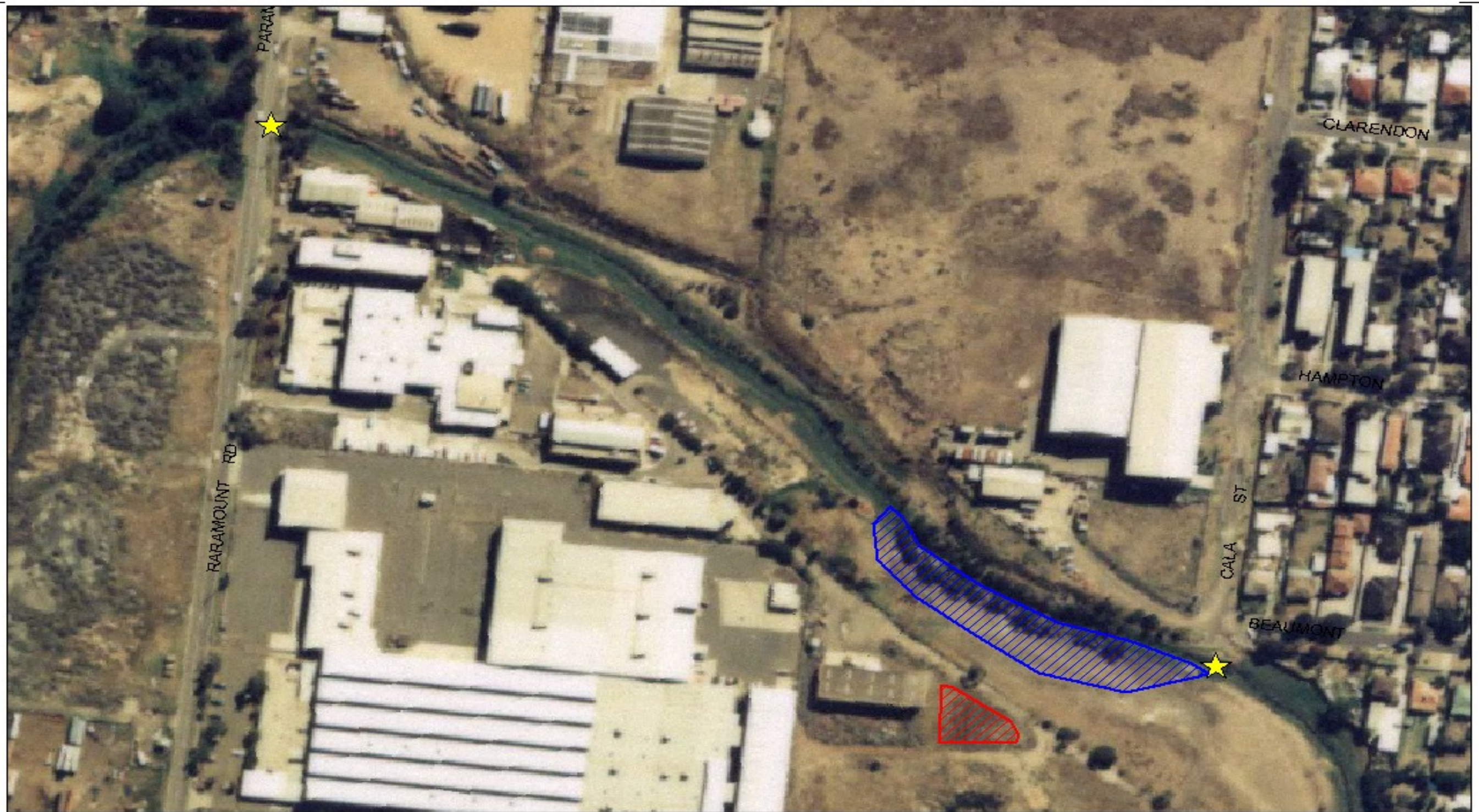


Site 2b - Graingers Road M.D outfall to Austin Crescent West




Scale 1:704

21/02/2005

Figure 6: Revegetation Site 3 – Downstream of Paramount Road to Cala Street



Whilst all due skill and attention has been used Melbourne Water Corporation shall not be liable in anyway for loss of any kind including, damages, costs, interest, loss of profits or special loss or damage, arising from any error, inaccuracy, incompleteness or other defect in this information. By receiving and accepting this information the recipient acknowledges that Melbourne Water Corporation makes no representations as to the accuracy or completeness of this information and ought carry out its own investigations if appropriate.

-  Site 3 boundary
-  Melbourne Water planned works
-  Council completed works



Site 3 - Downstream of Paramount Road to Cala Street





Scale 1:3,099

21/02/2005

Figure 7: Revegetation Site 4 – Railway line downstream of Sunshine Road to Sara Grove



While all due skill and attention has been used Melbourne Water Corporation shall not be liable in anyway for loss of any kind including, damages, costs, interests, loss of profits or special loss or damage, arising from any error, inaccuracy, incompleteness or other defect in this information. By receiving and accepting this information the recipient acknowledges that Melbourne Water Corporation makes no representations as to the accuracy or completeness of this information and ought carry out its own investigations if appropriate.

-  Site 4 boundary
-  Melbourn Water planned works
-  Council planned works
-  Tottenham Stores M.D



Site 4 - Downstream of Sunshine Road to Sara Grove




Scale 1:3,099

21/02/2005

Figure 8: Revegetation Site 5 – Cruickshank Park upstream of Francis Street



Whilst all due skill and attention has been used Melbourne Water Corporation shall not be liable in anyway for loss of any kind including, damages, costs, interest, loss of profits or special loss or damage arising from any error, inaccuracy, incompleteness or other defect in this information. By receiving and accepting this information the recipient acknowledges that Melbourne Water Corporation makes no representations as to the accuracy or completeness of this information and ought carry out its own investigations if appropriate.

-  Site 2b boundary
-  Melbourne Water planned works
-  Council planned works



Site 5 - Cruickshank Park upstream of Francis St

Scale 1:704

21/02/2005

This document was created with Win2PDF available at <http://www.daneprairie.com>.
The unregistered version of Win2PDF is for evaluation or non-commercial use only.