



*FRIENDS OF  
SCOTCHMANS CREEK AND  
VALLEY RESERVE Inc.*

A0037872K

STATE OF VALLEY RESERVE

A community treasure and conservation jewel



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## FOREWORD

This report has been produced by the Friends of Scotchmans Creek and Valley Reserve (FSCVR). FSCVR is a not-for-profit, community group based in the City of Monash and focused on the care and protection of Valley Reserve and the Scotchmans Creek Corridor. FSCVR was formed in 2001 as the result of a merger between the Friends of Valley Reserve (founded in 1981) and Friends of Scotchmans Creek (founded in 1998). This report complements our “Scotchmans Creek – State of the River” report.

The City of Monash is fortunate to have this beautiful conservation bushland reserve in the midst of its suburbia. We owe its existence to the foresight of local community members and Council who have embarked on over three decades of restoration work. It is critical that this dedicated work is not undone and that this special reserve is protected for future generations.

This report aims to concisely summarise the often-unrecognised history and significance of Valley Reserve including its conservation, social and cultural values. It also lists a number of threats to the reserve. Due to its appeal and desirability, and an increasing population, Valley Reserve now faces new threats to its ongoing protection. We hope this report will provide a useful resource for those wishing to learn more about this amazing reserve, and a basis for further community consultation and management. This report is not a rigorous scientific analysis of the reserve, although we have drawn upon scientific literature where possible.

As this report explains, the reserve contains some of the most intact remnant bushland in the City of Monash. There is so little original bushland in Monash (<1.5%) that it is vital for Valley Reserve to be managed as a conservation bushland, with a focus on appreciation of the natural environment and education of the community. *As such, we would like to take this opportunity to strongly advocate for Valley Reserve, and others like it, to be formally recognised as conservation reserves, which we believe is necessary to ensure its ongoing protection.* It would be unthinkable if the very reasons that make this reserve special and valued by the community might be lost or destroyed through its inappropriate management and over-use.

***We sincerely thank the Monash Council, it's amazing bushland and wetland crew, and Melbourne Water for their support throughout the time we have been in existence.***



Work party in Valley Reserve: Photo taken by University of Melbourne Student Ge Yang

## ***Acknowledgement of Country***

*Valley Reserve is part of the traditional lands of the Bunurong and Wurundjeri people of the Kulin nation. We wish to acknowledge them as the Traditional Owners and pay our respects to their Elders, past, present, and future.*

## EXECUTIVE SUMMARY

- Valley Reserve is a 15-ha bushland of regional conservation significance located in Mt Waverley.
- Valley Reserve is the beautiful bushland it is today because of the vision shown by Monash Council and the local community who have embarked on 3-4 decades of restoration works.
- Importantly, it is one of very few reserves in the City of Monash that supports high quality remnant vegetation, a vital link to the area's natural heritage.
- The combination of wetlands in close proximity to bushland and remnant vegetation, is important for a range of species and a highly valuable asset for biodiversity.
- Valley Reserve plays an important role in the community as a peaceful bushland retreat from suburbia as well as on a social, cultural and educational level.
- It supports a series of passive recreational activities such as walking trails, educational signage, a playground, BBQs and an education hub.
- It improves the liveability of the area through various ecosystem functions such as improved air quality and reduced urban heat syndrome.
- Valley Reserve is well used by a range of community groups, schools, families, walkers, nature lovers, photographers, individuals and university students at a local and regional level.
- Because there is very little original bushland in Monash, it is vital that Valley Reserve be managed as a conservation and bushland reserve, with a focus on appreciation of the natural environment and education of the community.
- A number of pressures, many driven by increasing population and urban densification threaten the very values for which Valley Reserve is so treasured. These include:
  - **Incompatible developments** - Proposals for developments in the reserve must be in keeping with and not degrade its conservation values, and not exceed the reserve's carrying capacity.
  - **Degraded wetlands** - The extent of sediment entrapment, weed infill and litter has reached levels where the wetland ecological and amenity values are seriously degraded and in need of urgent remediation.
  - **Dogs** - Valley Reserve is designated as a dog-on-lead area and dogs are not allowed along some tracks through sensitive remnant vegetation. This protects native flora and fauna, and ensures the amenity for other users. We recognise that there are many pet owners who responsibly enjoy the reserve. However, there is a serious issue with many owners walking their dogs off lead, through sensitive areas, and not cleaning up after their dogs. We urge council for more prominent signage and a proactive stance on this issue.
  - **Loss of gardens and permeable space** – urban densification has led to reduced property setbacks and the overall loss of gardens and permeable space. This has reduced the important foraging area available to fauna beyond the reserve, and led to increased stormwater with knock on issues such as erosion and creek pollution.
  - **Climate Change** – This has the potential to drive conditions beyond those suitable for historical flora and fauna of the reserve. Monitoring for early detection of decline and anticipatory management will be key here.
- We hope this report will instigate further measures to ameliorate these threats. We strongly advocate that Valley Reserve, and other significant bushland reserves like it, are formally recognised as conservation reserves, a status which will better ensure appropriate protection.

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## 1. INTRODUCTION

Valley Reserve is a beautiful 15 ha bushland reserve in Mt Waverley with both high conservation and recreational significance (Figure 1). Valley Reserve contains the largest area of native vegetation in any of the Council reserves[1, 2]. It is of regional botanical and zoological significance supporting a wealth of flora and fauna (biodiversity) and sections of indigenous remnant forest[3, 4].

It plays a central role in our local community, the broader Monash municipality, and wider Melbourne in a number of highly valued ways:

- as a treasured, peaceful bushland retreat
- an activity and educational area used by many community groups, schools and individuals
- it offers a play-space in keeping with the bush setting, BBQs and picnic areas, a bush education program, and signed walks and trails
- it provides important links to the area's natural heritage but particularly through examples of pre-existing flora and fauna and remnant forest.

### 1.1. LOCATION, KEY FEATURES AND FACILITIES

Valley Reserve is situated within Mount Waverley in the City of Monash as shown in Figure 2 and Figure 3. It is distinct from many other reserves in that it is not a linear reserve apart from the narrow animal corridor connecting it to Scotchmans Creek at Regent St. Valley Creek runs through the reserve from the north-west to south-east intercepting two constructed wetlands on its way, which are referred to here as the Alf Salkin Wetlands and the Regent St Wetlands (labelled 8 and 9, respectively, in Figure 3). There are a number of bush tracks with information signs including a climate watch trail. The bush tracks, especially those which run through the central areas give a strong sense of seclusion from the urban environment. There is also a bush playground, BBQs, education hub and septic toilet block. The Reserve also homes a culturally significant Scar Tree relocated from Springvale Road (section 3.1.4).



*Figure 1 Photos taken within Valley Reserve showing the well-developed bushland and wetland settings, walking trails and nature signposts.*



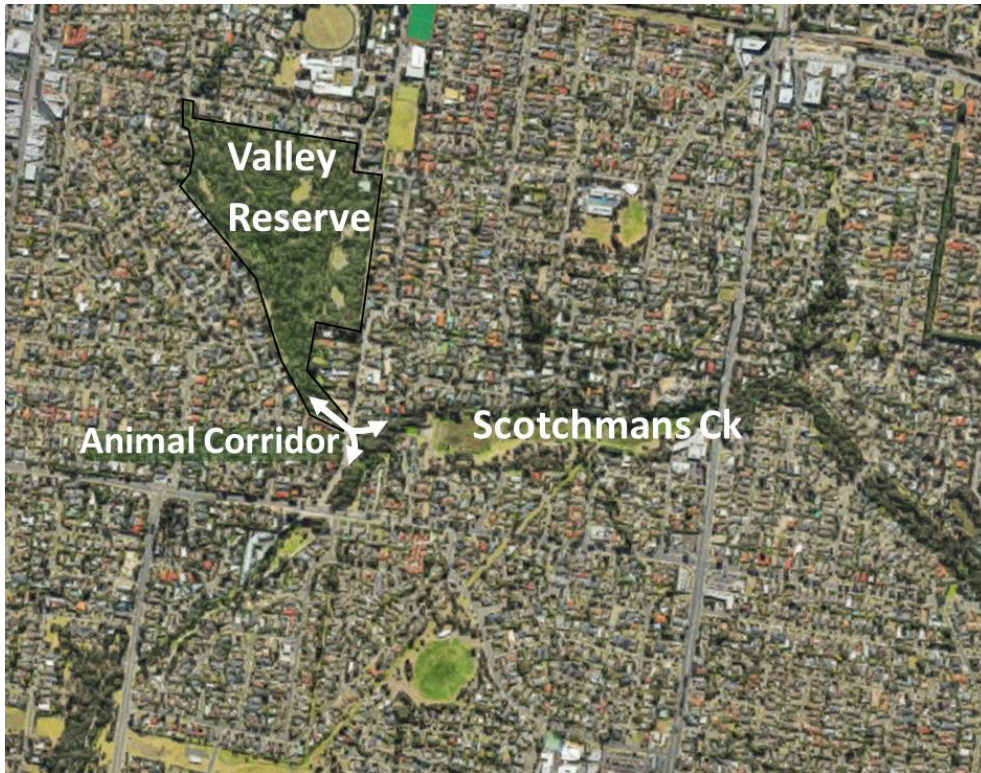


Figure 2 A Map showing the location of Valley Reserve and its connection to other linear reserves including Scotchman's Creek Trail.



Figure 3 Map of Valley Reserve and its key features.



## 2. THEN AND NOW: FOUR DECADES OF PRESERVATION AND IMPROVEMENT WORKS

Valley Reserve is the valuable Bushland reserve it is today due to the effort of a number of dedicated residents and groups. Notable amongst these is Alf-Salkin who co-founded the Friends group, and the Australian Plant Association (APS) who advocated for its conservation and worked tirelessly towards preserving its remnants and seedbank [5]. A brief history of the area is given below documenting early settlement and degradation of the bushland, followed by a change in attitude and four decades of restoration works by Monash Council, local residents and community groups.

### Pre-Settlement

Valley Reserve is part of the traditional lands of the Bunurong and Wurundjeri people of the Kulin nation. We wish to acknowledge them as the Traditional Owners and pay our respects to their Elders, past, present, and future.

By their presence for over 50 000 years, aboriginal groups had a profound effect on the flora and fauna of the region. When Europeans first arrived, they found an environment already strongly influenced by human habitation and activities – we should not forget this.

### Post-Settlement

The land now comprising Valley Reserve was initially leased for cattle droving in the 1840s. It was subsequently surveyed and made available for purchase, being bought in 1853 by a Mr Lovidge. In 1874 it was sold to Mr Jeanes and his new bride. It was later divided between their three daughters as shown by the map in Figure 4: Anne Scammell, Ellen Flynn and Mary Clohesy.

In the mid 1890's the process of subdivision began, with the land put to various uses such as orchards, market gardens, poultry farming, and a blacksmith.

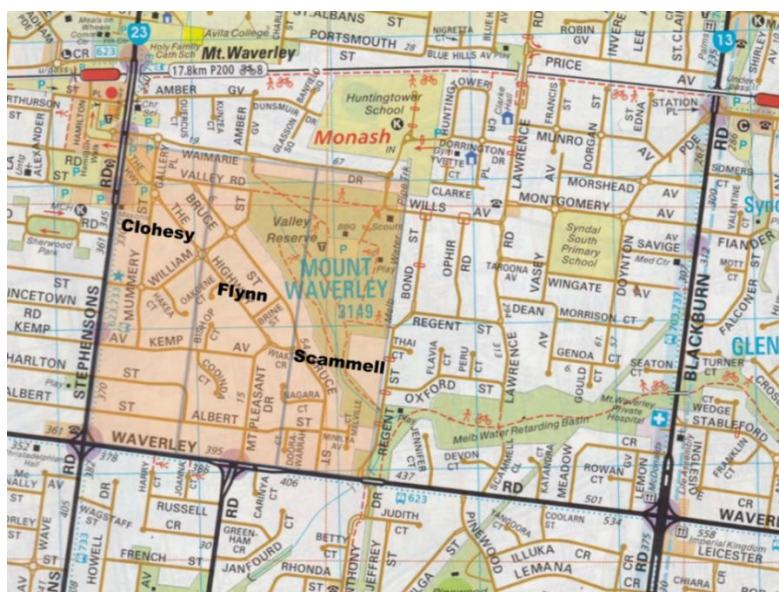


Figure 4 The land now comprising Valley Reserve was bought by a Mr Jeanes and his new bride in 1874. It was later divided between their three daughters as shown by the map: Anne Scammell, Ellen Flynn and Mary Clohesy.



## Urbanisation

After 1948, the landscape began to change as houses replaced paddocks. From 1955 the Mulgrave Shire Council bought land as opportunity arose to create Valley Reserve. The reserve was largely managed as open grassed areas for play, with little attention paid to the remnant bushland.

Concerned by the gradual loss and deterioration of remnant areas, the Native Plant Preservation Society (NPPS, now Australian Plant Society) supported by some Waverley residents negotiated with the new Waverley City Council in the 1970's to preserve samples of indigenous flora – focussed on Valley Reserve. However, the bushland continued to degrade.

In 1981 the Friends of Valley Reserve was founded by Alf Salkin and contributed significantly to the conservation of remaining native plant areas. Regular work parties were held to clear weeds and protect the creek environs but the area remained largely of open grassy paddocks. The Salkin Landing opened in 2006 in recognition of Alf Salkin's pioneering contributions to the conservation of Valley Reserve (Figure 5).

## Restoration

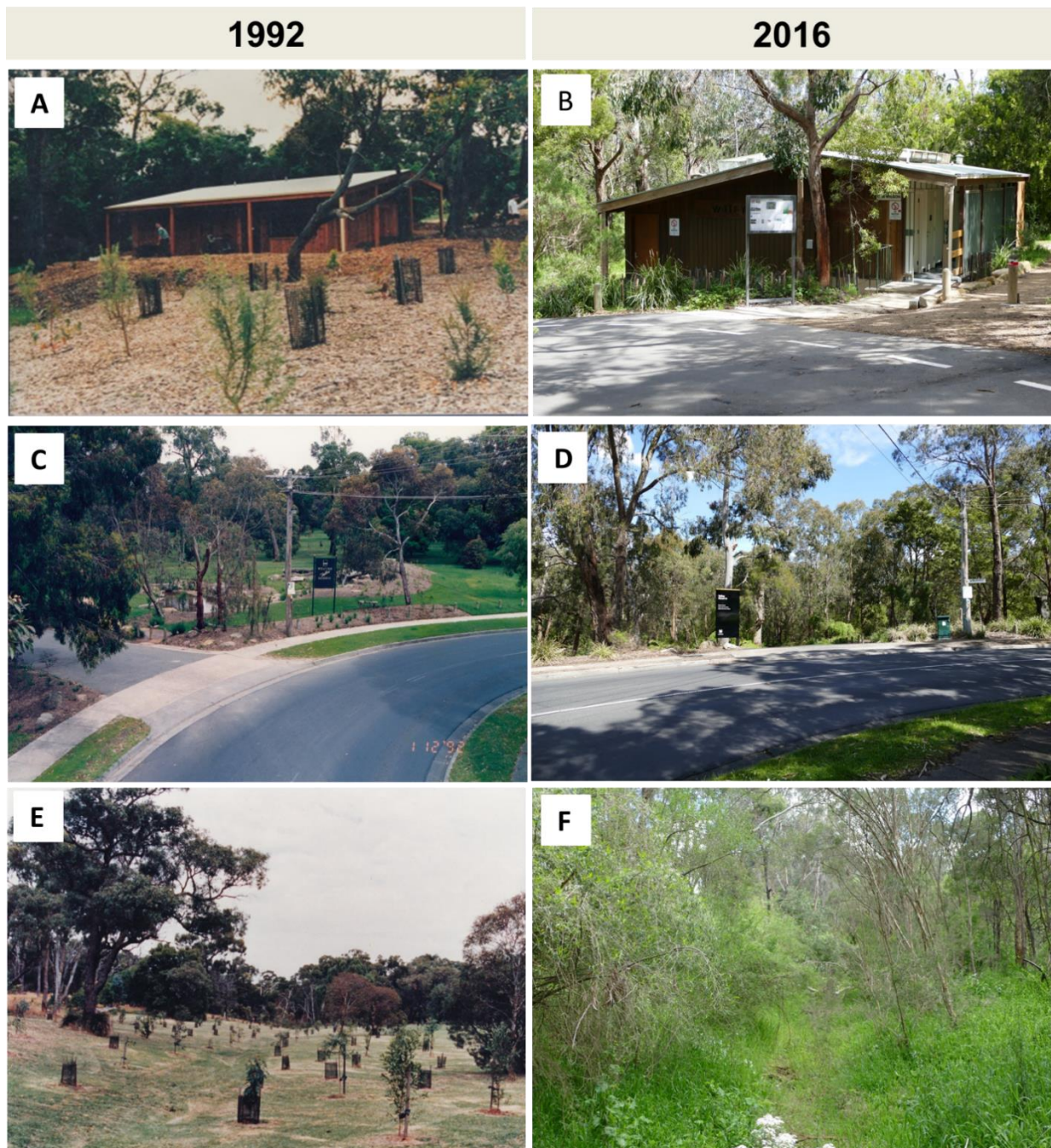
Attitudes gradually changed with increasing environmental awareness, and a new role for Valley Reserve as a conservation bushland was established in the early 1990s. This led to extensive restoration works by Waverley, then Monash council including rehabilitation and regeneration along the creek, replanting a number of adjacent areas and creation of a new bridge and a weir. This was followed by three decades of conservation works and planting by Monash Council and the local community. Since 2000, the Monash council has funded a full-time ranger working in Valley Reserve, and other council staff working along Scotchmans Creek and other bushland areas. The dedicated ranger and bush-crew have made exemplary progress on weed management and restoration throughout the reserve. The transformation is astounding as shown by the "before and after" photos in Figure 6.

## Now

Valley Reserve is well-loved by the local community and plays an important role in fostering an appreciation for bushland and the plight of nature. Conservation efforts including weeding, planting and maintenance work are ongoing but we are now faced with a range of new challenges such as increased infill and densification, climate change, and potential over-utilisation of the Reserve, each of which are discussed in Section 4.



*Figure 5 (left) Alf Salkin (right) opening of the Salkin Landing in 2006*



*Figure 6 Photos taken in 1992 (left) and 2016 (right) of (A)(B) The amenities block, (C)(D) The entrance near Waimarie drive and (E)(F) The 'swale' - The upper part of Valley Creek which runs underground.*



### 3. THE IMPORTANCE OF VALLEY RESERVE – ITS VALUES

Valley Reserve is well used by a range of community groups, schools and individuals from across the City of Monash for various reasons. Valley Reserve is important for its high conservation values, and also plays an important role in the community on a social, cultural and educational level. It also plays important ecosystem services such as better air quality and reduced urban heat syndrome contributing to a more liveable city. These values are described in more detail below.

#### 3.1 COMMUNITY VALUES

##### **3.1.1 A retreat from suburbia for passive recreation**

Valley Reserve is an important refuge from suburbia with its bushland providing a peaceful and serene setting and connection to nature. Terms such as “serene”, “quiet”, “relaxing”, “soothing”, “therapeutic” are frequent in Google Reviews. In keeping with its high conservation bushland values, the reserve offers *passive recreation opportunities* including a significant wooden adventure play space (Figure 7), BBQs, picnic spots, and well signed trails for walkers with educational information displays.

##### **3.1.2 Links to our natural history**

Valley Reserve provides important links to the area’s natural heritage, flora and fauna, especially through its areas of remnant vegetation (see next section). As such it is a wonderful resource, utilised by various schools (prep to Year 12) and community groups, from which to learn about nature and our past. A number of programs run in the Reserve to promote community involvement and appreciation for nature and conservation including a bush education area (Figure 8), an active Friends group (<http://scotchmanscreekfriends.org.au>), walks as part of the Positive Ageing Lifestyle program (PALs), and a Climate Watch trail. The play space also provides a range of attractive and informative signs.



Figure 7 New Valley Reserve playground built in 2016.





Figure 8 The Education hub which was installed in 2016.

### 3.1.3 Nature watching

Valley Reserve’s bushland supports a range of flora and fauna, and is popular with nature lovers, birdwatchers and photographers. Perhaps most obvious to visitors is its wide variety of birds, especially smaller ones, which are supported by the well-developed shrub understorey which also deters aggressive Noisy Miners[6]. Valley Reserve is used by tertiary students in their studies and by researchers (e.g. there have been a number of microbat studies in the reserve).

### 3.1.4 Indigenous culture - Valley Reserve’s scar tree

Another valuable link to the past is the Scar Tree which is believed to be of Aboriginal origin [7]. The scar tree originally stood in Springvale Rd. It was relocated to Valley Reserve in 1965 when the road was widened, but was slowly deteriorating. Following representations from FSCVR and the Waverley Historical Society, the Monash Council had the tree conserved, and erected near the water feature, with interpretive material. In 2016 the tree was ceremonially ‘smoked’ by Chris West of the Bunurong Aboriginal Land Council (Figure 9).



Figure 9 Left – The still living Scar Tree (Taken from [8]). Chris West performing a smoking ceremony of the Scar Tree.

## **3.2 CONSERVATION VALUES**

Valley Reserve is of zoological and botanical significance. It supports high biodiversity values including remnant vegetation, three endangered vegetation communities and significant fauna at a national, state, regional and local level [4]. This is reflected in its own listing in the book, Flora of Melbourne, 4<sup>th</sup> edition (Locality 155).

### **3.2.1 Remnant vegetation**

Valley Reserve contains some of the largest and most intact fragments of remnant bushland in the area [1, 2].

### **3.2.2 Flora**

Ecological Vegetation Classes (EVCs) are the standard unit for classifying vegetation types in Victoria [9]. Valley Reserve consists of three main EVCs which are all Endangered within the Gippsland Plain Bioregion [10, 11].

1. Grassy Woodland (GW, EVC 175)
2. Valley Heathy Forest (VHF, EVC 127)
3. Swampy Riparian Complex (SRC)

According to Quin et al. *“These [EVCs] would have been widespread prior to European settlement but are now only represented by small remnants throughout the urban environment”* [4]. According to Barnes et al. [10] *“within the 82 sq kilometres of the City of Monash, approximately 121 hectares or 1.5% remains.”* The book, Flora of Melbourne, lists Valley reserve as one of the three best remaining intact examples of Valley Heathy Forest EVC.

The distribution of the three EVCs throughout Valley Reserve is shown in Figure 10 along with a photo from each EVC area, although in reality there is a smooth transition. The grassy woodland occurs on the most northerly side of the Reserve which is at higher elevation away from the creek line and hence better drained. It consists of more sparsely distributed eucalypts (such as Narrow-leaf Peppermint, messmate stringybark) with a grass understorey. Moving south towards the creek the vegetation transitions to Valley Heathy Forest, with a denser and more complex understorey. Common amongst the mid- and understorey are a variety of acacias (e.g. black wattles and hedge wattles), Common Cassinia (*Cassinia aculeata*), Snowy white daisy bush (*Olearia lirata*), hakeas, bush-peas, Common Correa, Goodenia Ovata, Clematis, native lilies, and tussock and sedge grasses.

The Swampy Riparian Complex occurs along the creek line in swampy to waterlogged areas. Swamp paperbark, ferns (Austral Bracken and Mother Shield Ferns), tree ferns, grasses, sedges, and rushes are common. 76 indigenous species of flora were recorded within the Valley Reserve wetlands and immediate vicinity by Australian Ecosystem Pty Ltd in 2007 [3].

Quin et al. undertook a survey of Valley Reserve in 2000 and found that it provides an important sanctuary for ~32 regionally and State significant flora species as listed in [4, 12]. These are the most significant flora species of 100's of species present in the Reserve. A list of plants in the Monash Area between 1963 and 1967 was compiled by the Society for Growing Australian Plants – Waverley Group, and provides a valuable historical record of native species in the area (Appendix A). The Monash Urban Biodiversity strategy also lists flora in its bushland reserves [2].



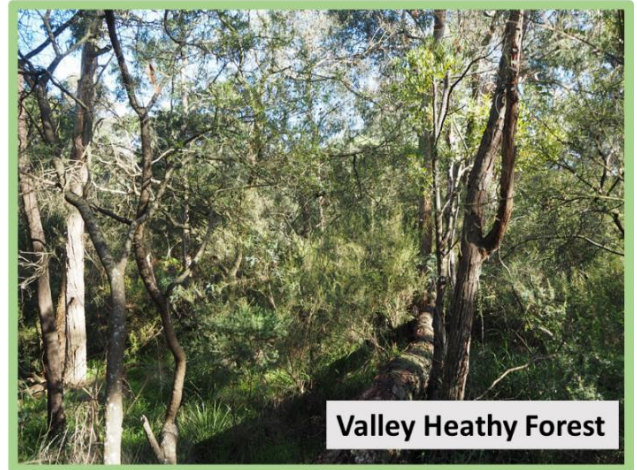
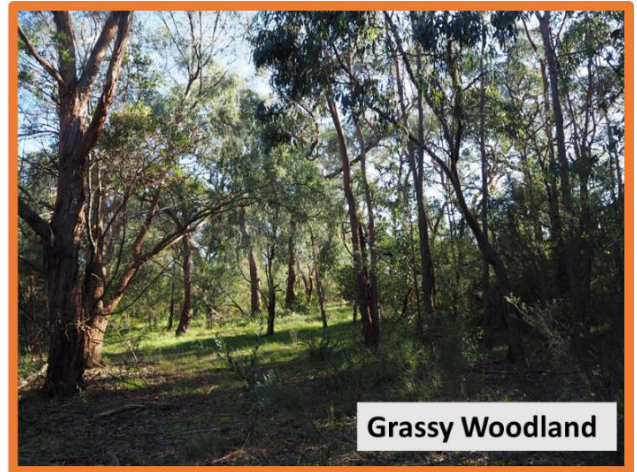
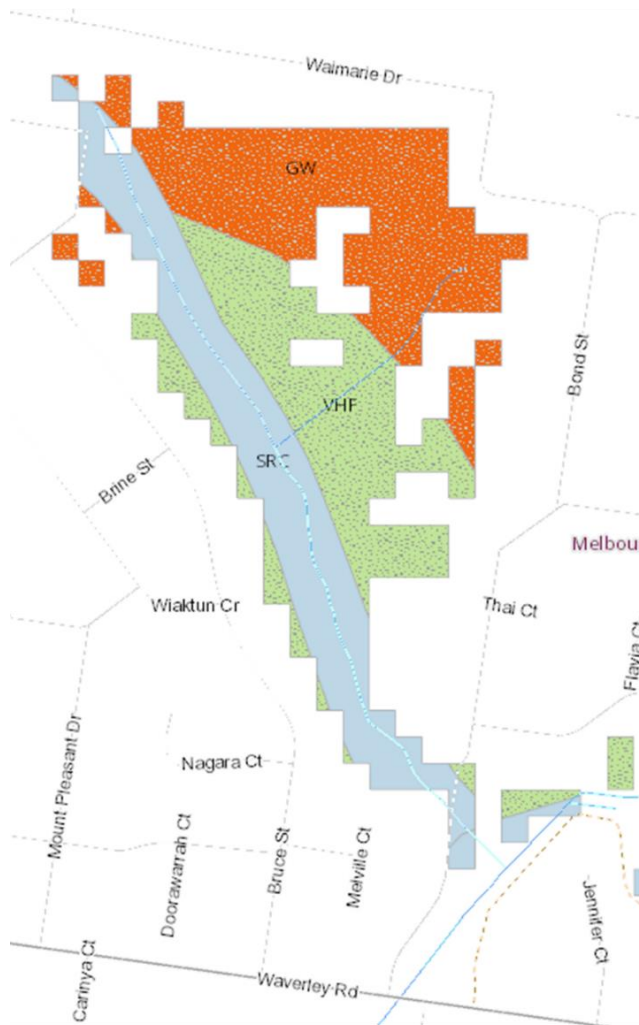


Figure 10 Map showing the three main Ecological vegetation classes (Brown - Grassy Woodland, Green – Valley Heathy Forest, Blue – Swampy Riparian Complex) taken from the State of Victoria Department of Environment, Land, Water & Planning 2016 Biodiversity interactive mapping tool <http://maps.biodiversity.vic.gov.au/viewer/?viewer=NatureKit> (January 2020). A photo is also shown of each Ecological vegetation class.



### 3.2.3 Fungi

Fungi are very inconspicuous by nature existing predominately underground and out of sight except for brief periods when their fruiting bodies are visible. Despite this they are extremely important to healthy ecosystems acting as decomposers and recyclers of dead matter, and forming all sorts of close biological associations with other plants and organisms. Valley Reserve supports a huge diversity of Fungi. While no official studies have been undertaken, hobby naturalists have photographed and documented 100's of these enchanting organisms in Valley Reserve (see Figure 11). Some are observed throughout the reserve regularly while others are more sparsely distributed and observed infrequently.



Figure 11 Photos of Fungi in Valley Reserve taken by Peter Uhlherr: (A) *Mycena carmeliana* (B) *Clavaria amoena* (C) *Amanita xanthocephala* – a mycorrhizal fungi (D) *Schleroderma cepa* - an earthball.

### 3.2.4 Fauna

The combination of wetlands and water in close proximity to high quality bushland, particularly remnant vegetation as provided by Valley Reserve, is critical to a range of species and hence encourages greater biodiversity. A range of key features such as mature eucalypts, dead trees/limbs, a well-developed understory, ground litter and access to water and wetlands are utilised by a range of mammals, reptiles, amphibians and birds.

A number of studies have found that Valley Reserve either supports or is utilised by a range of species including the Nationally significant Southern Bell Frog and Grey Headed Flying Fox (Vulnerable – National level, Threatened VIC), the State significant Powerful Owl (Endangered – VIC), a number of regional and locally significant species such as native water rats (Rakali), Eastern snake-necked turtle,

insectivorous bats (Figure 12), sugar gliders and a suite of bird species [3, 13-16]. Valley Reserve is a popular destination for bird enthusiasts. There are some public websites such as ebird (<https://ebird.org/australia/hotspot/L2531751>) documenting sightings in Valley Reserve, and other enthusiasts have their own websites or twitter accounts. This is exemplified by the stunning photos in Figure 13 taken by local residents.

It should be noted however, that there have been changes since European occupation. For example keystone grazers such as kangaroos are absent as are many of the small native mammal species such as the Brown Bandicoot or Potoroo which would have played critical ecosystem roles such as disturbance and dispersal of fungi [12].

### **3.3 ECOSYSTEM SERVICES**

Reserves such as Valley Reserve play a number of important roles for the liveability of cities, our health and well-being [17, 18]. Trees and vegetation:

- help regulate local temperatures and mitigate the urban heat island effect<sup>1</sup> through the provision of shade and the process of evapotranspiration<sup>2</sup> [19],
- remove air pollution by intercepting particulate matter and absorbing various gaseous pollutants [20],
- intercept rainfall which reduces stormwater run-off and filters it with benefits for our waterways.
- contribute to better physical health and mental well-being.
- are an effective way to adapt to climate change while also reducing greenhouse gas emissions.

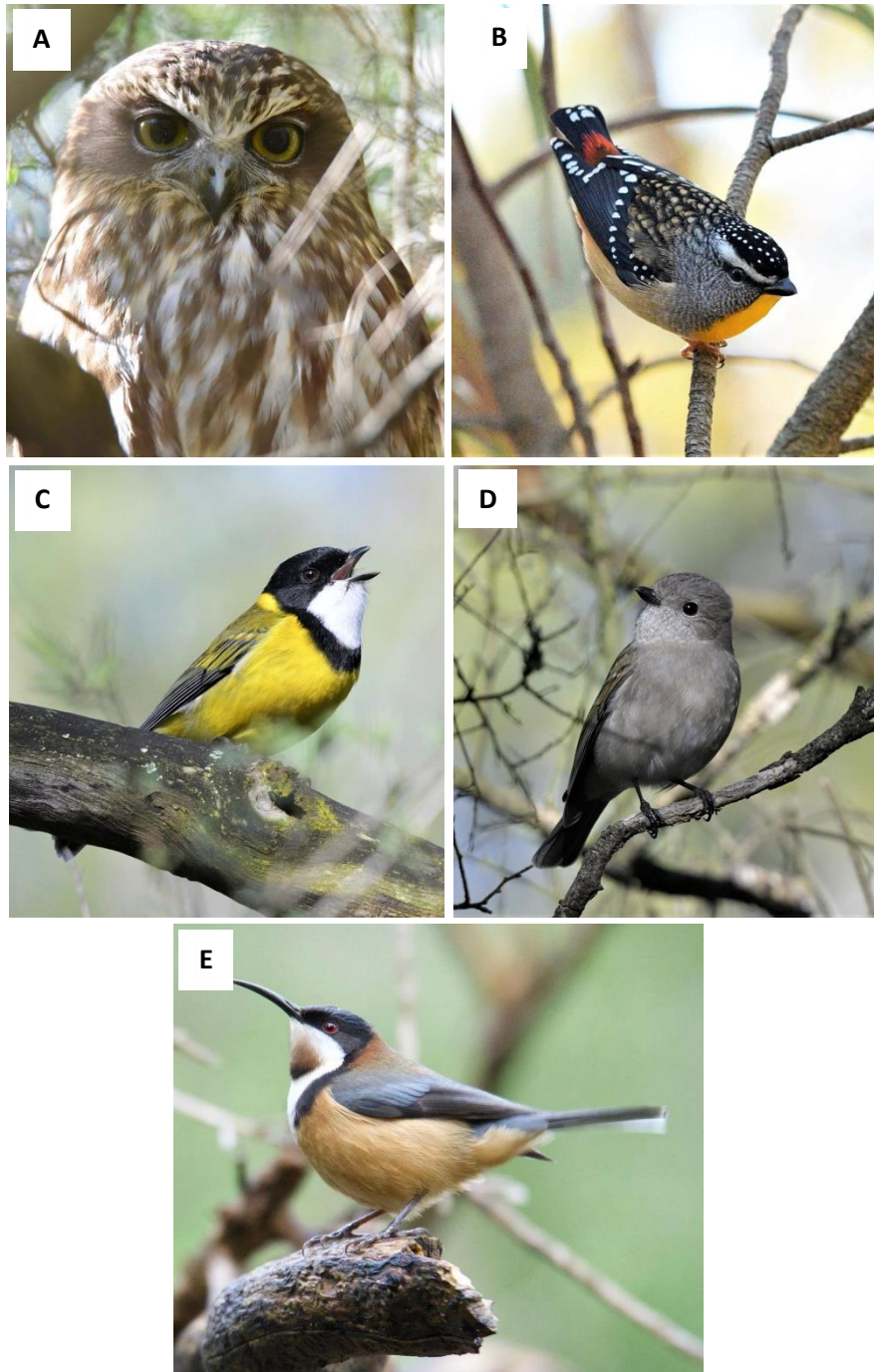


*Figure 12 A Tiny Goulds Wattled Bat in Valley Reserve (Photo – Fred Bullock). For the full article discussing the bat study in Valley Reserve see [21].*

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<sup>1</sup> The urban heat island effect occurs in cities where increased impervious surfaces such as buildings, roads and footpaths absorb and store the sun's heat and then radiate it back out, increasing temperatures significantly compared to more rural areas.

<sup>2</sup> The process in which water is absorbed through the roots and transpired through its leaves.



*Figure 13 Birds in the Reserve (A) Boobook Owl, (B) Spotted Pardalote, (C) a Male Golden Whistler, (D) Female Golden Whistler, (E) Eastern Spinebill. Photos taken by Marcia and Jack Collins in 2019: @mumbles31, @foamalone72).*



## 4. ISSUES AND THREATS

FSCVR are concerned about a number of issues that threaten the ongoing conservation of Valley Reserve and its role as a place for quiet-enjoyment and connection with nature. These concerns are listed below.

### 4.1 INCOMPATIBLE AND OVER-USE OF VALLEY RESERVE

Valley Reserve is first and foremost a conservation-oriented bushland reserve which, as described in section 3, provides an invaluable resource for the community to escape from suburbia. It is important that any proposed development or infrastructure is compatible with this primary purpose and does not negatively impact its conservation values, ecological processes or exceed its carrying capacity. In keeping with this purpose, the reserve currently supports a range of passive recreational activities.

However, increasing population and hence demand for open space is putting increased pressure on Valley Reserve to support incompatible uses. It would be tragic and unforgiveable if inappropriate development were to destroy the reasons that bring people to Valley Reserve in the first place.

FSCVR has serious reservations about proposals for:

- exercise stations – this would increase the number of runners and other ‘active’ users along narrow paths which are not suitable for this kind of activity
- any proposal involving lighting – Valley Reserve is an important local microbat habitat, and has many nocturnal animals such as sugar gliders
- any proposal necessitating widening of paths, their concreting, clearing of overhanging vegetation or impacting on conservation areas.
- Further expansion of the current play-space, BBQs and parking facilities. We believe this could lead to over-use of the area which is already under significant pressure.

#### ***Recommendations:***

A preferred alternative is for investment in the creation of further open space and play-spaces in other areas of Monash to cater for increasing demand and a diversity of spaces, as proposed for example by the Open Space Strategy.

We recommend that any upgrading of facilities or development of new facilities within Valley Reserve requires a frank assessment of the impact on the park’s remnant and revegetated areas. In particular, vegetation clearing requirements, due to fire regulations must be assessed. No development that impacts the conservation values or is likely to lead to its over-use should occur.

### 4.2 DEGRADED WETLANDS

Both the Alf Salkin and Regent St wetlands are highly degraded and in need of urgent maintenance (see Figure 14 and Figure 15, respectively).

Both wetlands have accumulated high sediment loads and are choked by tall marsh reeds and other weeds. Aggressive weeds such as Creeping Buttercup (*Ranunculus repens*), Wandering Jew (*Tradescantia fluminensis*) and Arum Lily (*Zantedeschia aethiopica*) have extended throughout the Regent St wetlands, displacing native species. The change in condition of the Regent St Wetlands is apparent in Figure 14 which compares photos taken shortly after construction with its condition today (July 2019).

Unsightly litter is a problem for the Alf Salkin Wetland. The underground storm water system daylight just north of this wetland bringing litter with it that is then trapped by the wetland. There is also a disturbing increase in the amount of Styrofoam in the creeks. This is known to break down into small, non-biodegradable, indigestible bits which are of particular concern for aquatic lifeforms which can mistakenly eat them. One likely source is from nearby residential development with its use of Styrofoam in concrete foundations. This issue may grow in decades to come as these buildings reach end of life and are demolished.

While wetlands naturally change and sediment entrapment is part of their function, we feel the extent of sediment entrapment, weed infill and litter is reaching levels where the wetland ecological and amenity values are now seriously degraded. This is of particular concern as wetlands are important for many species as discussed previously.

There has also been increased flooding of the area and walkways during steady moderate rain as shown in Figure 14C, which likely results from a combination of factors such as the large wetland sediment loading, increased water run-off due to urban infill and increased rainfall intensity due to climate change.



*Figure 14 (A)-(C) Photos of the Regent St Wetland in their present state taken looking (A) West and (B) East from the bridge showing the extent of weed overgrowth (Photos taken 22/7/2019). (C) Flooding in the Regent St wetlands (Photo taken on the 6/11/2018), (D) Photo of the wetlands in 1992 shortly after construction. The photo was taken from the council website <https://www.monash.vic.gov.au/Leisure/Parks-Recreation/Valley-Reserve>*

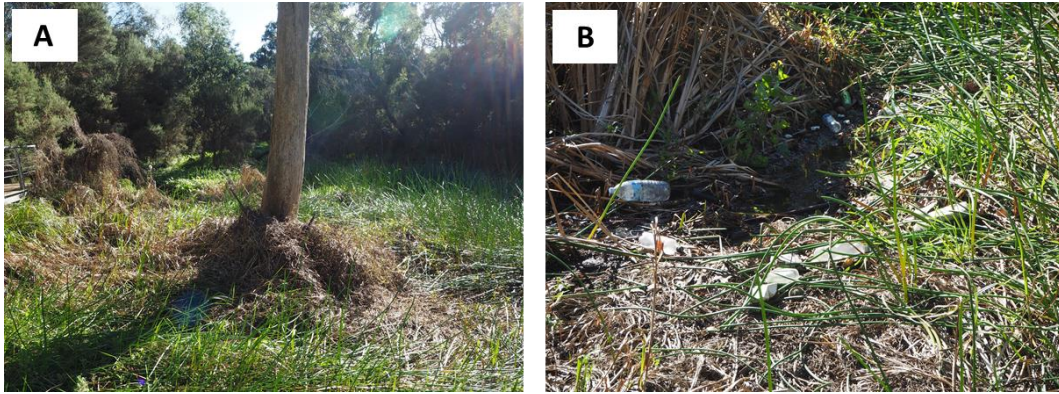


Figure 15 A) Choking of the Alf-Salkin wetlands by sediment and reeds B) Litter is a major problem in the Alf-Salkin wetlands

**Recommendations:**

- That sufficient funding be set aside in the next budget for wetland maintenance.
- Builders and homeowners educated about the responsible handling of Styrofoam to avoid its run off with stormwater into creeks.
- Explore options to deal with litter in the Alf Salkin wetlands

**4.3 CATS, DOGS AND FOXES**

**4.3.1 Dogs**

Valley Reserve is designated as a dog-on-lead area and dogs are not allowed along some tracks through sensitive remnant vegetation of vital conservation importance to native species. We recognise that there are many dog owners who responsibly use and enjoy the reserve. However, there is a serious issue with many dogs now walked off lead and through sensitive areas, and owners not cleaning up after their dogs. Sadly, this both reduces the enjoyment of the reserve by other users and causes damage to remnant and revegetated areas. As a bushland reserve Valley Reserve is also home to snakes. Keeping dogs on lead is also for their own protection preventing them from chasing and being bitten by snakes. Signage relating to no-dog areas is also systematically defaced in the reserve (Figure 16) with long replacement lead times.



Figure 16 Defaced sign with the “No Dog” scratched away.



It is common practice to keep dogs on leads and out of sensitive areas of bushland. Dogs and cats have a huge negative impact on natural bushland areas. The following list taken from Maroondah Council concisely summarises the threats pets pose to bushland when not responsibly controlled by owners [22]:

- Their presence and scent cause great stress to the local wildlife.
- Their droppings act as a fertilizer for weeds, which can out-compete indigenous vegetation. Droppings can also be directly harmful to indigenous plants, as they are naturally adapted to low nutrient soils [12].
- Their fur tends to attract seed of exotic plant species, spreading weeds into natural bushland areas and impacting on indigenous vegetation.
- They have been known to dig up, tread on and eat indigenous plant species, adding to the loss of indigenous orchids and other natural vegetation.
- They are capable of killing large numbers of wildlife (e.g. blue-tongue lizards). While cats are known to be opportunist hunters, recent studies have shown that dogs are also highly problematic to native species[23].
- Dogs off lead also pose a threat to and reduce the amenity for other users of the reserve.

#### **4.3.2 Cats and foxes**

Foxes and cats (both pets and feral) and are highly detrimental to bushland wildlife killing native birds, lizards and small mammals.

#### ***Recommendations:***

- A proactive and consistent approach by the city of Monash to ensure responsible pet ownership in the reserve.
- Prominent signage placed in the reserve indicating that it is a conservation area and that dogs must be kept on lead and out of designated remnant areas.
- Prompt replacement of defaced signage.
- Community education on responsible pet ownership such as the benefits of keeping dogs on leads and cat curfews at night.
- A supply of “No dog stickers” and “Dog on Lead” stickers that can be placed on the defaced signs by the Friends group or bush crew until they are repaired.
- Survey fox populations and use some form of fox control as necessary.

#### **4.4 TRAMPLING**

Soil compaction, loss of ground cover, erosion and disturbance of indigenous plant species by users and their pets venturing off the marked tracks is an ongoing threat to bushland. This is heightened around the playground area, just north of which is remnant bushland. While some fencing is provided, we have seen and heard stories of children climbing or being lifted by parents over fencing.

#### ***Recommendations:***

- Greater protection to prevent trampling such as barriers, educational signage, revegetation and signage clearly stating that the fenced area is off-limits.

## **4.5 URBAN INFILL, DENSIFICATION AND STORM WATER RUN-OFF**

An aging housing stock combined with a growing population has led to a period of strong urban infill and densification in the local area with an associated loss of permeable space. According to the *Monash Urban Landscape and Canopy Strategy 2017*, redeveloped blocks have changed from an average of 70% pervious surface in 1992 to only 30% pervious surface in 2015 [24]. This large loss of permeable space has three key implications for Valley Reserve as follows:

### **4.5.1 Loss of neighbouring foraging resources and property setback**

Firstly, suburban gardens and trees make an important contribution to the foraging area of fauna. Hence the reduced permeable space and its associated removal of gardens and trees, especially those in adjoining properties, reduces the foraging area for reserve fauna and the ability for fauna to move into and out of the reserve. This is exacerbated by the current trend for developers to clear or “moonscape” entire blocks prior to development.

New developments and subdivisions typically have a much smaller setback from the reserve. As a Bushfire Prone Area, this may require the fuel reduction zone, in which the vegetation is highly modified and reduced for fire management, to be accommodated within the reserve itself instead of on the property. This essentially means that the internal, undisturbed area of high-quality bushland in the reserve is reduced. This is a particular concern in narrow areas such as the south-east section of the reserve (see Figure 2) which also acts as an important animal corridor.

#### ***Recommendations:***

- That Monash Council continue to implement and enforce planning mechanisms to control the removal of significant trees, ensure that properties are sufficiently setback, have a minimum permeable area, and that all fire-management measures are accommodated on the property of new developments.
- Owners of properties in the local area and adjacent to the reserve encouraged to provide wildlife friendly gardens (e.g. the Gardens for Wildlife program).

### **4.5.2 Stormwater runoff**

Secondly, increased impervious surface has serious implications for our creeks, including those that run through Valley Reserve. Excess stormwater is well known to cause a range of degradation problems for creeks, the so-called urban stream syndrome [25].

In its natural environment 80-95% of rainfall in Victoria is evapotranspired back to the atmosphere. Less than 5% flows directly into the streams as surface run-off with the difference reaching streams after infiltration [26]. In contrast, in the urban environment, the storm water drainage system is highly efficient at collecting storm water run-off and delivering it directly to the nearest waterway, as quickly as possible. This results in pulses of high-velocity water flows, in turn leading to erosion and other knock-on effects for the stream ecology and biota [27].

Increased erosion is particularly evident along the creek in Valley Reserve which runs south-west from the Scout Hall (see Figure 17). There is significant erosion near the scout hall, where the storm water conduit daylights and falls some meters. Near the main playground carpark erosion has led to a dangerous 2m deep cavity (see Figure 17 D, E). Apparently the soil profile of the reserve consists of a layer of mottled orange-yellow clay material from the Brighton Group (City of Monash 1990)

which is prone to erosion [4]. The changed hydrology, erosion, increased turbidity and pollution carried by stormwater also affect the instream vegetation and fauna.

**Recommendations:**

That Water Sensitive Urban Design (WSUD) principles are implemented in all further works in Valley Reserve and encouraged in local developments. The implementation of WSUD is also an objective under Priority 1: Built Environment of Monash’s Environmental Sustainability Strategy 2016-2026. The percentage of impervious surface directly connected waterways can be reduced through the use of either centralised systems such as swales which intercept, filter and slow the run-off before it enters the creek, or through the encouragement of dispersed systems such as rainwater tanks, green roofs and rain gardens at individual properties.

It is common practice to require new developments, especially large ones, to ensure storm water run-off is kept at pre-development levels. We strongly encourage Monash Council to start enforcing VCAT permits requiring this.



*Figure 17 Erosion issues along the ephemeral Valley creek that runs from the North of Valley Reserve (near the scout hall, where storm-water conduit daylight) and then runs South-West where it meets Valley Creek: B) Erosion control near the Scout Hall, C) erosion where the storm water daylight falls some meters, D-E) dangerous erosion near the playground carpark, where a pipe has broken leading to a ~2m deep hole.*



### 4.5.3 Construction sites

A final issue related to urban infill is the pollution and increased turbidity caused by construction site run-off (e.g. polystyrene, litter, soil and clay) as shown in Figure 18 for a property neighbouring Valley Reserve.



*Figure 18 Run-off from a construction site adjacent to Valley Reserve which directly entered Valley Creek and the Regent St Wetlands.*

### 4.6 WEEDS

Weeds pose an ongoing threat to Valley Reserve. This is well managed by the bush crew within the reserve to control their impact, especially within remnant areas. These weeds often invade from the surrounding suburbia via bird and animal dispersal and via stormwater entering creeks [12].

#### *Recommendations*

Community education to discourage landowners in the area from planting environmental weeds and to encourage planting of native species. The FSCVR intend to work towards new pamphlets and brochures about Valley Reserve, its flora, fungi and fauna, history and issues including the most serious weeds. The Gardens for Wildlife program also creates important awareness about these issues.

### 4.7 CLIMATE CHANGE

Climate change is one of the most pressing challenges facing the world today. Since the 1900's South Eastern Australia has seen an average temperature increase of just over 1°C and rainfall has declined by around 11 per cent in the cooler April–October months [28, 29]. These trends are predicted to continue along with an increase in the frequency and intensity of extreme weather events such as heatwaves, drought and heavy rainfall, dependent on mitigation efforts. Valley Reserve and other green spaces play an important role in ensuring adaptable and liveable cities in the face of climate change. However, anthropogenic climate change may result in non-ideal conditions for many of the reserves historical flora and fauna putting them at risk of decline. It is critical that high value reserves are regularly surveyed, as suggested in Monash's Urban Biodiversity strategy, to monitor their health and a more anticipatory management approach implemented as required. For example, it may be necessary to plant more drought tolerant species with greater ability to adapt to future conditions. The timing of plantings has already been pushed to earlier Months.

## 5. FUTURE RECOMMENDATIONS AND CONCLUSION

In summary, Valley Reserve *is a community treasure and conservation jewel* highly deserving of ongoing protection. We owe its existence to the foresight and dedication shown by local residents and Monash Council, who have committed over three decades of restoration and conservation efforts. It is up to us to ensure this legacy continues and that we protect this special reserve for future generations.

To this end, we strongly advocate for the formal recognition of Valley Reserve as a conservation reserve and that a long-term management plan consistent with this focus is developed as a matter of priority. FSCVR would be very happy to contribute to a vision statement for the reserve that would provide the context for such a management plan. Formally renaming it as Valley Conservation Reserve would also create greater awareness amongst the community of its importance.

Constructive feedback is most welcome. Please get in touch if you have any suggestions or advice.

### *Acknowledgements:*

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Mother and baby Kookaburra in Valley Reserve

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## APPENDIX A - FLORA LIST OF VALLEY RESERVE

SOCIETY FOR GROWING AUSTRALIAN PLANTS - WAVERLEY GROUP  
SUPPLEMENT TO "NEWSLETTER" MAY, 1974  
LIST OF PLANTS RECORDED IN A SURVEY OF  
WAVERLEY VICTORIA BETWEEN 1963-1967

SITES INCLUDED: -

J.R.	Jell's Road
O.G.C.	Old Waverley Golf Course, Cnr. Waverley Road & Blackburn Road.
H.D.C.	Head of Damper Creek and what is now Mt. Waverley High School
D.C.	Dandenong Creek at the bottom of Waverley Road & at High Street Road
S.C.	Scotchmans Creek in the vicinity of Waverley, Blackburn & Forster Roads
V.R.	Valley Reserve
R.E.	Railway Easement between Syndal and Glen Waverley Stations.
*	Introduced species.

Numbers refer to page in Willis, J.H. "A Handbook to Plants in Victoria".

		<u>PTERIDOPHYTA</u>	
<u>FILICINAE</u>			
<u>DENNSTAEDTIACEAE</u>			
	Pteridium esculentum	Austral Bracken	(ALL) 21
<u>LINDSAYACEAE</u>			
	Lindsaya linearis	Screw Fern	(OCC) (JR) 23
<u>ADIANTACEAE</u>			
	Adiantum aethiopicum	Common Maidenhair	(HDC) 24
		<u>SPERMATOPHYTA</u>	
<u>ANGIOSPERMAE</u>			
<u>MONOCOTYLEDONAE</u>			
<u>TYPHACEAE</u>			
	Typha angustifolia	Bulrush	(SC) 62
<u>GRAMINEAE</u>			
	Microlaena stipoides	Weeping grass	(ALL) 90
	Tetrawhena juncea	Wire grass	(DC) 91
*	Briza maxima	Shell grass	(HDC) 92
*	Briza minor	Shivery grass	(HDC) 92
*	Dactylis glomerata	Cocksfoot	(JR, HDC, RE) 92
	Poa australia	Tussock grass	(ALL) 96
*	Holcus lanatus	Yorkshire Fog	(ALL) 132
*	Anthoxanthum	Sweet Vernal grass	(DC) 134
	Phragmites communis	Common Reed	(DC) 167
	Stipa semibarbata	Fibrous spear-grass	(ALL) 184
	Stipa elatior	Spear grass	(HDC) 187
	Paspalum distichum	Water couch	(DC) 199
*	Paspalum dilatatum	Paspalum	(DC) 199
	Themeda australis	Kangaroo grass	(ALL) 212
<u>CYPERACEAE</u>			
	Scirpus nodosus	Knobby club-rush	(DC) 225
	Schoenus apogon	Common Bog-rush	(OGC) 241

<u>CYPERACEAE</u>			
Cladium glomeratum	Soft twig-rush	(DC)	244
Ghania radula	Thatch saw-sedge	(ALL)	247
Lepidosperma laterale	Variable sword-sedge	(ALL)	250
<u>JUNCACEAE</u>			
Luzula campestris	Field woodrush	(DC,OGC)	283
Juncus pallidus	Pale rush	(DC,OGC)	286
Juncus polyanthemus	Tussock Rush	(ALL)	286
<u>LILIACEAS</u>			
Xanthorrhoea minor	Small grass-tree	(ALL)	296
Lomandra filiformis	Wattle mat-rush	(ALL)	298
Lomandra longifolia	Spiny-headed mat-rush	(ALL)	302
Chamaescilla corymbosa	Blue stars	(JR,OGC)	302
Caesia parviflora	Pale grass-lily	(OGC)	304
Arthropodium milleflorum	Pale vanilla-lily	(HDC)	305
Dichopogon strictus	Chocolate lily	(JR,HDC,VR)	305
Thysanotus patersonii	Twining fringe lily	(JR)	306
* Asphodelus fistulosus	Onion weed	(ALL)	308
Tricoryne elatior	Yellow rush-lily	(ALL)	309
Dianella revoluta	Black-anther flax lily	(ALL)	314
Dianella laevis	Pale flax lily	(ALL)	314
Stypandra caespitosa	Tufted blue lily	(JR)	315
Anguillaria dioica	Early nancy	(ALL)	317
Burchardia umbellata	Milkmaids	(ALL)	318
<u>HYPOXIDACEAE</u>			
Hypoxis glabella	Yellow star	(ALL)	328
<u>IRIDACEAE</u>			
* Iris germanica	German iris	(OGC)	331
Patersonia longiscapa	Long Purple-flag	(JR)	336
* Fresia refracta	Common Fresia	(JR,OGC)	341
<u>ORCHIDACEAE</u>			
Thelymitra pauciflora	Slender Sun Orchid	(JR,OGC)	
Thelymitra aristata	Scented Sun Orchid	(JR)	
Thelymitra rubra	Salmon Sun Orchid	(JR)	
Diuris longifolia	Wallflower Orchid	(JR)	
Diuris pedunculata	Golden Moths	(JR,OGC)	
Caladenia dilatata	Green Comb Spider Orchid	(JR)	
Caladenia patersonii	Common Spider Orchid	(JR)	
Caladenia carnea	Pink Fingers	(JR)	
Glossodia major	Wax-Lip Orchid	(JR)	
Glossodia major (alba)	White Wax-Lip Orchid	(JR)	
Cryptostylis subulata	Large Tongue-Orchid	(JR)	
Pterostylis parviflora	Tiny Greenhood	(JR)	
Pterostylis nutans	Nodding Greenhood	(JR,OGC)	
Pterostylis longifolia	Tall Greenhood	(JR)	
Gastrodia sesamoides	Cinnamon Bells	(JR)	
Dipodium punctatum	Hyacinth Orchid	(JR)	



		<u>DICOTYLEDONEAE</u>	
<u>CASUARINACEAE</u>			
	Casuarina littoralis	Black She-Oak	(JR) 20
<u>PROTEACEAE</u>			
	Hakea ulicina	Furze Hakea	(JR) 49
	Hakea nodosa	Yellow Hakea	(JR) 51
	Hakea sericea	Bushy Needlewood	51
		(A population of a pink form grew in the siding on Springvale Rd. between High St. Rd. and Burwood Road)	
<u>SANTALACEAE</u>			
	Exocarpus cupressiformis	Cherry Ballart	(ALL) 60
<u>LORANTRACEAE</u>			
	Amyema pendulum	Drooping Mistletoe	(VR) 68
<u>AZOACEAE</u>			
	Tetragonia implexicoma	Bower Spinach	(DC) 125
<u>RANUNCULACEAE</u>			
	Clematis aristata	Australian Clematis	(ALL) 146
	Ranunculus lappaceus	Australian Buttercup	(ALL) 150
	* Ranunculus repens	Creeping Buttercup	(OGC) 151
<u>LAURACEAE</u>			
	Cassytha pubescens	Downy Dodder-laurel	(DC) 160
<u>CRUCIFERAE</u>			
	* Diplotaxis tenuifolia	Sand Rocket	(OGC) 170
<u>DROSERACEAE</u>			
	Drosera auriculata	Errienellam	(ALL) 188
	Drosera whittakeri	Scented Sundew	(ALL) 190
<u>TREMANDRAEAE</u>			
	Tetradlea ciliata	Pink Bells	(JR,OGC) 195
<u>PITTOSPORACEAE</u>			
	* Pittosporum undulatum	Sweet Pittosporum	(HDC) 197
	Bursaria spinosa	Sweet Bursaria	(ALL) 198
	Billardiera scandens	Common Apple-berry	(ALL) 201
<u>ROSACEAE</u>			
	* Rubus ulmifolius	Blackberry	(ALL) 265
	Acaena anserinifolia	Bidgee-widgee	(ALL) 209

<u>ROSACEAE</u>			
<i>Acaena ovina</i>	Sheep's Burr	(ALL)	210
<u>MIMOSACEAE</u>			
<i>Acacia verticillata</i>	Prickly Moses	(HDC, JR)	212
<i>Acacia aculeatissima</i>	Thin-leaf Wattle	(ALL)	213
<i>Acacia ulicifolia</i>	Juniper Wattle	(HDC)	214
<i>Acacia armata</i>	Hedge Wattle	(ALL)	216
<i>Acacia stricta</i>	Hop Wattle	(OGC)	219
<i>Acacia pycnantha</i>	Golden Wattle	(VR)	226
<i>Acacia myrtifolia</i>	Myrtle Wattle	(HDC)	226
<i>Acacia melanoxylon</i>	Blackwood	(ALL)	236
<i>Acacia implexa</i>	Lightwood	(HDC,VR)	237
<i>Acacia oxycedrus</i>	Spike Wattle	(HDC)	238
<i>Acacia longifolia</i>	Sallow wattle	(ALL)	241
(Two forms occur, one which is probably a garden escape, and another which has been known locally for many years as the Syndal Wattle. A small population of this variety still exists in the vicinity of Syndal Station).			
<i>Acacia mearnsii</i>	Black Wattle	(ALL)	243
<u>PAPILIONACEAE</u>			
<i>Sphaerolobium vimineum</i>	Leafless Globe-pea	(HDC)	256
<i>Viminaria juncea</i>	Golden Spray	(OGC)	256
<i>Daviesia latifolia</i>	Hop Bitter-pea	(ALL)	257
<i>Daviesia virgata</i>	Narrow-leaf Bitter-pea	(ALL)	257
<i>Pultenaea gunnii</i>	Golden Bush-pea	(JR)	261
<i>Pultenaea paleacea</i>	Chaffy Bush-pea	(JR)	262
<i>Dillwynia cinerascens</i>	Grey Parrot-pea	(ALL)	277
<i>Platylobium obtusangulum</i>	Common Flat-pea	(ALL)	277
<i>Bossiaea prostrata</i>	Creeping Bossiaea	(ALL)	279
<i>Bossiaea cinerea</i>	Showy Bossiaea	(JR)	280
<i>Hovea heterophylla</i>	Common Hovea	(OGC, JR)	281
* <i>Sarothamnus scoparius</i>	English Broom	(HDC)	284
<i>Indigofera australis</i>	Australian Indigo	(ALL)	298
<i>Kennedia prostrata</i>	Running Postman	(OGC, JR)	311
<i>Hardenbergia violacea</i>	Purple Coral-Pea	(OGC)	312
<u>GERANIACEA</u>			
<i>Geranium potentilloides</i>	Crane's Bill	(ALL)	318
<u>RUTACEAE</u>			
<i>Correa reflexa</i>	Common Correa	(JR, HDC, VR, RE)	340
<u>POLYGALACEAE</u>			
<i>Comesperma volubile</i>	Love Creeper	(JR)	342
<u>EUPHORBIACEAE</u>			
<i>Poranthera microphylla</i>	Small Poranthera	(ALL)	350
<i>Ricinocarpos pinifolius</i>	Wedding Bush	(JR)	351

<u>STACKHOUSIACEAE</u>			
	Stackhousia monogyna	Creamy Stackhousia	(ALL) 354
<u>RHAMNACEAE</u>			
	Spyridium parvifolium	Australian Dusty Miller	(DC) 369
<u>MALVACEAE</u>			
	Gynatrix pulchella	Hemp Bush	(DC) 381
<u>DILLENACEAE</u>			
	Hibbertia stricta	Erect Guinea-flower	(ALL) 389
<u>HYPERICACEAE</u>			
	Hypericum gramineum	Small St. John's Wort	(ALL) 392
<u>VIOLACEAE</u>			
	Viola hederacea	Ivy-leaf Violet	(ALL) 397
<u>THYMELAEACEAE</u>			
	Pimelea humilis	Common Rice-flower	(ALL) 404
<u>MYRTACEAE</u>			
	* Eucalyptus botryoides	Southern Mahogany	(OGC) 409
	* Eucalyptus cladocalyx	Sugar gum	(HDC) 410
	Eucalyptus macrorhyncha	Red Stringy-bark	(ALL) 411
	Eucalyptus obliqua	Messmate Stringy-bark	(VR) 413
	Eucalyptus viminalis	Manna Gum	(DC) 420
	Eucalyptus rubida	Candle Bark	(DC) 421
	Eucalyptus cinerea	Argyle Apple	(VR) 422
	Eucalyptus radiata	Narrow leaf Peppermint	(SC) 426
	Eucalyptus ovata	Swamp gum	(HDC) 428
	Eucalyptus melliodora	Yellow Box	(ALL) 435
	Leptospermum myrsinoides	Heath tea-tree	(JR) 445
	Leptospermum scoparium	Broom Tea-tree	(JR) 447
	Leptospermum juniperinum	Prickly tea-tree	(ALL) 447
	Melaleuca ericifolia	Swamp paper-bark	(HDC,SC,VR,DC) 455
<u>ONAGRACEAE</u>			
	Epilobium hirtigerum	Hairy willow-herb	(VR) 464
<u>HALORAGACEAE</u>			
	Haloragis micrantha	Creeping Raspwort	(ALL) 468
	Haloragis tetragyna	Common Raspwort	(ALL) 468



<u>UMBELLIFERAE</u>		
Hydrocotyle laxiflora	Stinking Pennywort	(ALL) 480
Centella cordifolia	Centella	(VR,HDC) 482
Xanthosia dissecta	Cut-leaf Xanthosia	(HDC) 485
<u>EPACRIDACEAE</u>		
Epacris impressa	Common Heath	(ALL) 498
Astroloma humifusum	Cranberry Heath	(JR) 501
Acrotriche serrulata	Honey Pots	(ALL) 511
<u>GENTIANACEAE</u>		
* Centaurium pulchellum	Centaury	(ALL) 524
<u>CONVOLVULACEAE</u>		
Dichondra repens	Kidney-weed	(ALL) 541
<u>SOLANACEAE</u>		
* Solanum pseudocapsicum	Madeira Winter Cherry	(DC) 550
<u>LABIATAE</u>		
Prostanthera lasianthos	Victorian Christmas Bush	(DC) 588
Prunella vulgaris	Self Heal	(DC) 591
<u>PLANTAGINACEAE</u>		
* Plantago lanceolata	Ribwort	(ALL) 604
Plantago varia	Variable plantain	(HDC,VR) 605
<u>RUBIACEAE</u>		
Opercularia ovata	Broad-leaf stinkweed	(DC) 609
Coprosma quadrifida	Prickly Currant-bush	(DC) 611
<u>CAMPANULACEAE</u>		
Wahlenbergia communis	Tufted Bluebell	(HDC,JR) 626
Wahlenbergia gymnoclada	Naked Bluebell	(ALL) 627
<u>GOODENIACEAE</u>		
Goodenia ovata	Hop Goodenia	(DC) 636
<u>BRUNONIACEAE</u>		
Brunonia australis	Blue Pincushion	(RE,HDC) 645

<u>STYLIDIACEAE</u>		
Stylidium graminifolium	Grass Trigger-plant	(ALL) 647
<u>COMPOSITAE</u>		
Lagenophora stipitata	Common Lagenophora	(ALL) 662
Brachycome decipiens	Field Daisy	(JR) 664
Brachycome cardiocarpa	Swamp Daisy	(JR) 664
* Aster subulatus	Aster Weed	(ALL) 680
Gnaphalium japonicum	Creeping cudweed	(DC) 702
Cassinia arcuata	Drooping Cassinia	(ALL) 703
Cassinia aculeata	Common Cassinia	(ALL) 704
Helichrysum semipapposum	Clustered Everlasting	(HDC,OGC) 711
Helichrysum scorpioides	Button Everlasting	(ALL) 712
Helichrysum dendroideum	Tree Everlasting	(ALL) 717
Leptorhynchos tenuifolius	Wiry Buttons	(ALL) 722
Craspedia glauca	Common Billy-buttons	(DC) 733
Cotula coronopifolia	Water Buttons	(OGC,DC) 743
Cotula australis	Common Cotula	(ALL) 743
* Senecio elegans	Purple groundsel	(ALL) 750
Senecio quadridentatus	Cotton Fireweed	(ALL) 754
Senecio glomeratus	Fireweed	(ALL) 754
Senecio hispidulus	Fireweed	(ALL) 754
Mlicroseris scapigera	Yam-daisy	(JR) 768
* Taraxacum officinale	Dandelion	(ALL) 771
Sonchus oleraceus	Sow Thistle	(ALL) 772

## APPENDIX B - RELEVANT MONASH COUNCIL DOCUMENTS

Valley Reserve is a key contributor to and/or mentioned in the following Monash Council documents.

### 1. The Environmental Sustainability Strategy 2016-2026

P22 Urban Ecology: *“Monash’s most significant natural environmental areas are Valley Reserve, Jells Park and the riparian corridors of Dandenong Creek, Gardiners Creek, Scotchmans Creek and Damper Creek”*

P22 Objective 2.2 *“Long-term biodiversity outcomes are achieved on Council owned and managed conservation reserves”*

P30 Action 2.2.1 *“Continue to manage Council’s conservation reserves in accordance with best practice conservation and land management principles”*

### 2. Monash Open Space Strategy 2018

P2 Introduction *“Open space provides .....*

- *‘Environmental benefits related to the conservation of habitat and biodiversity, and protection of biological and cultural heritage’.*

P15 Map 1: ‘Open Space by Primary Function and Access type’ identifies Valley Reserve as a Conservation area.

P36: *“Care needs to be taken that trails in bushlands do not erode environmental integrity.”*

P49 Reinforcing ‘Garden City Character’ and connecting with nature *“There are significant park and bushland areas that are identified in Monash that provide a connection with nature. Examples include the Valley Reserve, Damper Creek Reserve and parklands that run along the eastern boundary of Monash such as Bushy Park Wetlands (managed by Parks Victoria). Those parks that have a specific role as bushland or conservation need to be carefully maintained to protect significant flora and fauna. It may be that specific masterplans should be prepared for this parks to ensure their future maintenance or development is considered carefully.”*

P51 Key directions for other aspects of open space –

*“6. Ensure that parks with a specific role for bushland or conservation are carefully maintained to protect significant flora and fauna.”*

*“b. Consider whether a masterplan should be prepared for significant bushland and conservation parks, such as Valley Reserve and Damper Creek reserve for example.”*

### 3. Monash Biodiversity Strategy

P11 Valley Reserve is identified as one of 7 conservation reserves identified of State significance

P19 Valley Reserve is identified as 1 of 16 high priority indicator reserves.

Objective 6 – Implementation Plan Item 6.2 *“Review the zones of public land used primarily for conservation purposes in consultation with the relevant Committees of Management and/or landowner, especially the most vulnerable and significant, and allocate Conservation reserve status.”*

#### **4. A Healthy and Resilient Monash: Integrated Plan**

P11 Healthy Environments: *“Our health is closely linked to the natural and built environments in the communities where we live”.*

‘Valley Reserve offers opportunities for quiet passive recreation and connection to nature, supporting a healthy environment and community well-being.