



12<sup>th</sup> July 2018

## Providing a Buffer Zone for Seaford Wetlands

Our research conducted after the meeting on 21/06/2018 in support of a buffer zone around Seaford Wetlands has provided an eclectic mix of documents and excerpts. We hope that these will be of some benefit for getting approval from the State Government.

Finding a specific distance for a buffer zone is elusive e.g.

- EVCs may be present within a one kilometre buffer of the Edithvale-Seaford Wetlands (LXRA)
- previously registered Aboriginal Places within a 2km radius (Melbourne Water)
- within 200 metres of a declared Ramsar wetland is an area of cultural heritage sensitivity (Melbourne Water)

Plus of significance in Melbourne Water's Draft Healthy Waterways ...

*There is also an expectation that urban renewal over the next 50 years will enable the reduction of directly connected imperviousness (DCI) by at least 25 per cent in the existing urban area.*

And from Water for Victoria

*Now we know that keeping stormwater in the landscape and managing discharges to our stormwater systems can help to reduce the impact of erosion and pollution of our urban waterways*

*...the refresh of Plan Melbourne 2014 strengthens the focus on the city's response to climate change through the creation of a more resilient and environmentally sustainable Melbourne*

## 1 State Government

### 1.1 LXRA Groundwater Assessment

10-Groundwater-Preliminary-Impacts-Ecological-Assessment-Rail-Under-Road-Edithvale-and-Bonbeach-Public:

*... Based on DELWP Ecological Vegetation Classes (EVC) modelling, there is potential for up to six EVCs to be present within a **one kilometre buffer** of the Edithvale-Seaford Wetlands.*

#### 1.1.1 Victorian Biodiversity Atlas

<https://www.environment.vic.gov.au/biodiversity/victorian-biodiversity-atlas>

This website was used by LXRA in their Environment Effects Statement (EES) for Edithvale-Bonbeach and may be a source of additional information for you.

## 1.2 Water for Victoria – Water Plan Strategy 2018

Most relevant sections are from Page 82 on

### **Section 5 Resilient and liveable cities and towns**

*... what we will do... Improve stormwater management for greener environments and healthier waterways*

#### **5.3 Better stormwater management for a healthy and resilient urban environment**

*Traditionally, we have managed stormwater with a focus on urban drainage, seeking to remove it from the landscape as quickly as possible. Now we know that keeping stormwater in the landscape and managing discharges to our stormwater systems can help to reduce the impact of erosion and pollution of our urban waterways. By better managing stormwater we can build our resilience to floods and make more water available for urban vegetation.*

#### **Strategy 5.4 Working across government to support healthy and resilient urban landscapes**

*....the refresh of Plan Melbourne 2014 strengthens the focus on the city's response to climate change through the creation of a more resilient and environmentally sustainable Melbourne*

#### **Action 5.7 Represent community values and local opportunities in planning**

## 1.3 Victorian Auditor-General Report on Ramsar Sites

Overall, this report holds Melbourne Water as better than some other Site Managers as it has a Management Plan for Edithvale-Seaford, however, it also states:

*No one plan met all the requirements to be considered a comprehensive management framework for a Ramsar site..... identified risks from recreational activity, changes in water quality and climate change were rarely addressed.*

Could FCC cite support of the report by working to limit threats to the wetland's ecological character?

Other areas for possible research may be legislation that is relevant to wetland management (ref page 23)

- Catchment and Land Protection Act 1994
- Environment Protection Act 1970
- Environment Effects Act 1978
- Flora and Fauna Guarantee Act 1988
- Water Act 1989.

## 1.4 Melbourne Water

### 1.4.1 Melbourne Water Draft Healthy Waterways June 2018

*Communities place high value on waterways providing natural environments and habitat for plants and animals, therefore most actions taken to maintain or improve environmental values will contribute to the maintenance or improvement of social values (Page 37.)*

#### **4.3. Threats to waterway values (Page 45):**

*The key threats to waterway values considered in developing this draft Healthy Waterways Strategy are stormwater, climate change, urbanisation, poor water quality, and pest plants and animals*

*... Urban development typically involves covering the landscape with 'hard' or impervious surfaces that cannot let water through and, as a result, rainwater runs off these surfaces through stormwater drains and straight into our waterways as polluted stormwater. Stormwater runoff has the following impacts:*

- *It causes waterways to have reduced flows most of the time and higher, unnatural flows for a few hours after it rains*
- *It carries pollutants and litter from urban areas into waterways*
- *It makes beaches unsuitable for swimming for one to two days after heavy rain*

#### **4.3.3 Urbanisation pressures**

*Urban encroachment and densification around urban waterways detract from waterway amenity, with development resulting in overshadowing, loss of views and vistas, noise pollution, or loss of a sense of naturalness around waterways*

*....Given the many, complex issues facing waterways, a place-based approach of integrating land use planning and waterway management is required. Place-based approaches are used across government to reflect the expectations and desires of local communities, and enhance the health and wellbeing of communities and the environmental systems they rely upon.*

#### **Secure and enhance the Edithvale–Seaford Ramsar site and surrounding creeks and wetlands within the South-east Green Wedge (Page 94)**

*Key Objectives:*

*4. Protect waterways and Port Phillip Bay by adopting a risk-based approach to mitigating sources of pollution*

*5. Improve long term outcomes for waterways by continuing to support capacity building programs for stormwater and rural land managers*

*11. Develop a better understanding of groundwater dependent ecosystems and look for opportunities to maintain or improve these.*

*13. Create cooler, greener and more liveable communities through urban cooling*

*Increase the buffer of native vegetation around key wetlands, and reduce threat of invasive plant species*

*Improve the buffer of native vegetation surrounding key wetlands*

*Improve the continuity of wetland buffers on key wetlands*

#### **11.3.1 Integrated Water Management (Page 122)**

*Integrated water management captures the idea that all parts of the water cycle and land use practices are intrinsically connected and efficiencies can be gained when these parts are driven by consistent objectives. It requires a collaborative approach to planning that brings together organisations that influence all elements of the water cycle, wastewater management, alternative and potable water supply, stormwater management and water treatment*

#### **11.3.6 Planning**

*Changes in land use and development have the potential to adversely affect waterway health and the social and environmental values of waterways. This draft Strategy acknowledges the important role Victoria's planning system can provide to protect and enhance the region's waterways*

*... There is also an expectation that urban renewal over the next 50 years will enable the reduction of directly connected imperviousness (DCI) by at least 25 per cent in the existing urban area.*

### **1.4.2 Edithvale-Seaford-Management-Plan 2016**

#### **Water Quality**

Although the impact of stormwater run-off is mentioned, no specific actions are detailed, possibly because the urban land is not under the control of Melbourne Water.

*Water quality in the Edithvale-Seaford Wetlands is likely to be significantly influenced by saline water intrusion from groundwater, exposure of coastal acid sulphate soils, backflows of saline water in drains during high tides<sup>1</sup> and the quality of stormwater run-off from adjoining urban areas*

### **Desktop Cultural Heritage Assessment – Seaford Section**

This may not be appropriate but it seemed worth mentioning:

*The location of previously registered Aboriginal Places within a 2km radius shows that Aboriginal sites can be located on elevated landforms around the edges of low-lying swampy areas, sites can also be located on sandy dune systems.*

*(1) Subject to subregulation (2), a declared Ramsar wetland or land within 200 metres of a declared Ramsar wetland is an area of cultural heritage sensitivity.*

*(2) If part of a declared Ramsar wetland or part of the land within 200 metres of a declared Ramsar wetland has been subject to significant ground disturbance, that part is not an area of cultural heritage sensitivity.*

*(1) The construction of three or more dwellings on a lot or allotment is a high impact activity.*

*(2) The carrying out of works for three or more dwellings on a lot or allotment is a high impact activity.*

## **1.4.3 CHVA & Climate Change**

Based on the Bayside C153 Panel Report, Melbourne Water does not currently consider Climate Change as part of its modelling and will not until a new **Coastal Hazard Vulnerability Assessment** (CHVA) for the central region (encompassing Port Phillip Bay) has been completed. I can find no timeline for this on the DSE site and recent parliamentary bills related to Climate Change are more concerned with Carbon Emissions than Sea Level.

Three directions contained in the 2012 CHVA are relevant to planning in Seaford, namely:

3. Prioritise the planning and management responses and adaptation strategies to vulnerable areas, such as protect, redesign, rebuild, elevate, relocate and retreat.
4. Ensure that new development is located and designed so that it can be appropriately protected from climate change's risks and impacts and coastal hazards.
5. Avoid development within primary sand dunes and in low-lying coastal areas.

### **1.4.3.1 Seaford Topography**

As the Seaford lowlands were formerly part of the Carrum Carrum Swamp it has elevations only 5-7m above Sea Level making it highly susceptible to Climate Change impacts. By comparison, most of Frankston-Dandenong Rd, Frankston North is 12-17m and Wells Street Frankston is 12-14m.

<http://en-au.topographic-map.com/places/Seaford-1595956/>

## 1.5 Department of Environment, Land, Water and Planning 2017

### 1.5.1 Edithvale-Seaford Ecological Character Description (ECD)

Page 17:

*A risk assessment was conducted as part of the development of the plan and identified the following high priority threats (Quinn et al. 2016). They are described in further detail in Quinn et al. (2016).*

- *Urban stormwater contributing to increased salinity.*
- *Invasive species: common reed (Phragmites australis) and cumbungi (Typha spp.).*
- *Invasive species: foxes, cats and rats.*
- *Climate change: increased frequency and intensity of fire.*
- *Climate change: sea level rise.*
- *Climate change: increased frequency and intensity of storms.*

### 1.5.2 Guidelines for Assessment under the Environment Effects Act 1978 (DSE 2006)

As no single body appears to have the relevant data to determine if or when the following should apply, FCC could argue it is **being pro-active in protecting the area**.

*Page 7 Criteria: potential long-term change to the ecological character of a wetland listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia'*

## 1.6 Plan Melbourne 2017-2050

*Direction 6.3: to "integrate urban development and water cycle management to support a resilient and liveable city"*

The prime objective of the State Government is to house its rapidly expanding population. At a Council level this requires smart planning to achieve best possible results and still satisfy this objective. Put simply:

**You can't say where development can't go unless you also say where it can go.**

In asking for a buffer zone around The Wetlands and other areas subject to flooding, FCC can justify that sufficient growth will occur in the other areas specified in the Frankston Housing Strategy to meet State Government targets.

## 2 Friends of Edithvale-Seaford Wetlands

FESWI has provided a short document that gave no specific distance for a buffer, but does mention:

*"Ramsar Management Plan acknowledges the problem of excessive stormwater flows – caused in part by intense urban development around wetlands and lack of permeable surfaces."*

## 3 City Council Reports

It seemed appropriate to review what Councils have been doing. The following is a summary of what we found.

## 3.1 Kingston City Council

As indicated at our meeting you have already researched Kingston overlays in the region of Edithvale Wetlands.

### 3.1.1 Amendment C054 - November 2006 and GRZ3

Thanks to this amendment applied to incremental change areas in Kingston, the residential zone surrounding the Edithvale wetlands enjoys some protection with only **50% Site Coverage, Private Space restrictions and 9m Height**.

With the FCC Housing Strategy still not recognizing anything but Frankston South as Incremental, this makes any argument for similar treatment in Seaford challenging. This lack of recognition for the need for Incremental Zone elsewhere in Frankston needs to be changed. Must this wait yet again until the next time the FCC Housing Strategy is presented to Councillors or could an amendment be made now?

### 3.1.2 Kingston Integrated Water Cycle Strategy 2012

As Melbourne Water does not consider local Council drains in its modelling, the FCC decision to monitor and hopefully adopt Kingston's approach for Stormwater Quality Contribution payments from developers is excellent.

## 3.2 City of Greater Geelong

### 3.2.1 Wetlands Strategy October 2006

[http://www.ccmaknowledgebase.vic.gov.au/soilhealth/soils\\_resource\\_details.php?resource\\_id=1872](http://www.ccmaknowledgebase.vic.gov.au/soilhealth/soils_resource_details.php?resource_id=1872)

This is a comprehensive document but although the following Action 1 was marked as critical (to be completed in 1-2 years), we can find no evidence that it has been completed.

It may be appropriate for you to contact Geelong to see if they have at the very least established guidelines for these buffer zones.

Page 10 & 23 Actions 1 and 6:

*Establish as appropriate Planning Scheme recognition for Environmental Significance Overlays to protect wetlands with Medium, High and Very High Values. **These are to also extend to buffer zones around the wetlands***

*Review the Urban Growth Strategy and structure plans for the City of Greater Geelong, identify the elements that have the potential to impact on wetlands, and develop strategies to mitigate, minimise or avoid adverse impacts at local catchment and regional scales.*

### 3.2.2 Corangamite Waterway Strategy 2014

[https://issuu.com/gsdm/docs/waterway\\_strategy\\_2014-22](https://issuu.com/gsdm/docs/waterway_strategy_2014-22)

A large document but it seems of little value for our purposes.

### 3.2.3 VCAT Denied Permit Application June 2018

One interesting VCAT decision that did not favour the developer recently was Coles v Greater Geelong CC [2018] VCAT 829 (6 June 2018). Although in RGZ2, the property was also subject to SBO. This suggests the SBO areas should not be RGZ.

34. While there is strategic support for a more intense form of development – which this proposal for three dwellings responds positively to – this particular design response is not an acceptable one.

35. This site is somewhat constrained due to its susceptibility to overland flows from the urban drainage system. The proposed design of the stormwater system and range of measures expected to be implemented by residents in perpetuity gives rise to too much uncertainty about the likelihood of the system's success.

36. In the circumstances, a design based engineered response is to be preferred rather than one that relies heavily upon ongoing resident management as sought to be imposed by the Council through the requirement for a s.173 agreement. As a general principle, the latter measure should be avoided where the consequences of a system's failure would cause potentially harmful effects for residents, property and the broader public

### **3.3 Frankston City Council**

#### **3.3.1 Frankston Amendment C12, 2001**

Amendment C12 applied 44.05 SPECIAL BUILDING OVERLAY to a great deal of Seaford Lowlands but does not appear to have been revised since 2001.

#### **3.3.2 Frankston Flood Management Plan 2011**

- Due to be revised 2016
- 7.1 Drainage Strategy

Significant quotes:

Page 33: "Urban consolidation typically increases runoff and can either create drainage problems or exacerbate existing problems"

Page 35: Frankston is the "6th most affected municipality in Victoria by number of properties inundated due to sea level rise based on the Australian Government's Climate Change Risks to Australia's Coasts. While the number actually affected will vary depending on how well the existing dune system can protect the inland region (e.g. the dunes around Seaford)"

Page 35: "These effects are just due to the change in sea levels, however there is also changes to rainfall patterns which affect the flooding. Projections are that rainfall intensities will increase by 32% by 2100"

Page 49: "Flood mapping not undertaken in council managed drains: Planning and engineering departments of council to liaise with each other to ensure flood risks are taken into account – High"

#### **3.3.3 Frankston Integrated Water Action Plan 2016-2026**

Page 60 confirms that a feasibility assessment has been of high priority for a few years!

F06WX018 - Advocate for the feasibility assessment of, and if viable, the Seaford Wetland Reserve stormwater treatment scheme. High Priority.

### **3.4 Bayside City Council**

#### **3.4.1 Bayside Planning Scheme C153 Panel Report, January 2018**

Bayside C153 was looking to add, remove and change existing SBO – with some 755 properties being covered for the first time: (<https://www.bayside.vic.gov.au/sbo-boundaries-map>). This change has been driven by changes in runoff as a result of increased hard surfaces.



*Melbourne Water's practice is not to include any predicted increases in rainfall as a result of climate change for catchments.*

*.... Draft Central Regional Coastal Plan (2015-2020) stated that there is a need to develop a Coastal Hazard Vulnerability Assessment for the central region (encompassing Port Phillip Bay). This assessment would be a necessary precursor to the development of a planning tool to deal with coastal hazards and inundation associated with sea level rise, and would inform the science underpinning the Melbourne Water modelling method.*

## 4 Reference documents

The following documents formed part of our research and copies are available via this link – <http://www.seafordcc.org/files/Seaford-Wetlands-Buffer-Zone/>

1. Auditor General Report 20160914-Ramsar-Wetlands Obligations
2. Bayside\_C153\_Panel\_Report - SBO Update January 2018
3. DSE097\_Guidelines for EES Assessment (DSE 2006)
4. Edithvale-Seaford-Ramsar-Site-Ecological-Character-Description-Addendum ([www.water.vic.gov.au](http://www.water.vic.gov.au))
5. FCC Integrated\_Water\_Action\_Plan\_2016-2026\_-\_October\_2016
6. Frankston\_City\_Coastal\_Management\_Plan\_2016
7. Geelong\_Wetlands\_Strategy\_2006
8. Kingston 32-08 Schedule 3 GRZ 2014
9. Kingston C54 Explanation Nov 2006
10. Kingston-Integrated-Water-Cycle-Strategy-January-2012
11. Kingston-Stormdrain-A4\_A-guide-for-developers\_2017
12. LXRA\_10-Groundwater-Preliminary-Impacts-Ecological-Assessment-Rail-Under-Road-Edithvale-and-Bonbeach-Public
13. LXRA\_EES-Edithvale-Bonbeach Groundware Dependent EcoSystems
14. Melbourne Water Draft\_Healthy\_Waterways\_Strategy\_2018
15. Melbourne Water - Edithvale-Seaford-Management-Plan 2016
16. VCAT Denied application in SBO Coles v Greater Geelong CC
17. Victorian-Coastal-Hazard-Guide 2012
18. Water for Victoria – Water Plan Strategy 2018