# Melbourne Water Drainage Schemes

**Friend or Foe?** 

A perspective from Jamie Tainton



# **Todays Scope**

We got clause 56  $\rightarrow$  then Drainage schemes

Lets explore how Drainage Schemes are working now from a high level to see if they can be (or should be) spread across broader catchments?

We now have Clause 56 style requirements in commercial and industrial but how will they be addressed (Amendment VC154)

 $\rightarrow$  will we get more drainage schemes?

What about Integrated Water Cycle Management plans? Where do they fit?



# Definition....

A development services scheme comprises a drainage strategy for an area together with a pricing arrangement that allows Melbourne Water to require developers to contribute to the cost of the construction of works by Melbourne Water.

- Melbourne Water Principles for Provision of Waterway and Drainage Services for Urban Growth



# which fundamentally ties into....

The objective of the Environmental Water Reserve is to preserve the environmental values and health of water ecosystems, including their biodiversity, ecological functioning and quality of water and other uses that depend on environmental condition.

- Department for Environment, Land, Water and Planning



# History of Drainage Schemes

- Started in 2003 when they replaced the Greenfield Drainage Schemes
- In 2004 Essential Services commission got involved and endorsed the process
- Representation from industry bodies like UDIA, ALDE, MAV HIA
  - But not Stormwater Victoria ← need to work on that!
- Reflects Melbourne Water's responsibility in line with the water act but payments triggered by the Subdivisions Act.
- Limited to parcels >0.4ha
- Life of a scheme is expected to last 25 years (end of build out)
- Full engineering review every 5 years
- Financial review every 1 year



# History of Drainage Schemes

The Melbourne Water Principles for Provision of Waterway and Drainage Services for Urban Growth now incorporates:

- Development Services Schemes (Drainage Services Schemes)
- Redevelopment Services Schemes,
- Works Outside of Development Services Schemes,
- And Stormwater Quality Offsets

A common set of hydraulic and environmental performance criteria including:

- 1 in 100 yr flood protection
- 1 in 5 yr minor conveyance
- Water Quality to BPEM
- Protect broad waterway values (environment, social, economic)



# 16 principles in DSS development

No limit to size	Doesn't fund external connections
Boundary to be topographical (natural or constructed)	Works downstream of scheme are funded in scheme
Cater for all lots in scheme boundary	Authority to fund additionally incurred assets
Optimal design (balance cost vs performance)	Rates will consider the life of DSS (25 years)
Share the assets evenly over boundaries	Robust Consultation
All landholders treated the same (regardless of size)	Contributions can be reduced with on lot works
Protection works are included	Finance is reviewed annually
Existing developed lots are not expected to pay	Land acquired at broad acre value if developable



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# **Optimal Design**

- Schemes are designed to be the best cost vs performance at the time
- Everyone has a different approach / angle / perspective / idea
- Always opportunities to improve and vary
- Focus on natural systems



# Topographical Boundary– Case Study

• Culvert at wrong elevation





# **Optimal Design- topography**

• Assets aren't always located at low points....







# Optimal Design – Case Study

Consider the topography in location







# Optimal Design – Case Study

• Can't put drainage in drainage reserve





# Optimal Design – Case Study

• Add in culvert in different location







#### Robust Consultation – a case study







### Contributions for on lot works

• Western Water IWMP





#### What next....

So if we are having these challenges now, should we extend them across to commercial and industrial!



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....but we need to do them smarter and more integrated.



#### Example – Western Water IWMP

• Infiltration systems – passive watering



### Example – Western Water IWMP

• Alternative water supply (rainwater tanks)





### Example – Western Water IWMP

- Infiltration systems passive watering
- Alternative water supply (rainwater tanks)
- MW doesn't have a facility to assess the merits of an IWMP

..... we are getting push back on the offset reductions  $\leftarrow$  WHY?



# Example – Dual use facilities

- Retarding basins on sporting fields
- Storage underneath sporting fields for harvesting or retardation







# Example – Authority collaboration

- Drainage assets in drainage reserves (even if managed by Parks Victoria)
- Combined authority assets (VicRoads)









# Example – Actual consultation

- More transparency and working together
- Outcome focus, facilitate innovation





# Example – Municipality based offsets

- Council's are reluctant to approve them because MW get the funds
  - Need to find a way for councils to access this funding more transparently. Catchment funding applications perhaps?
  - OR Council's like Kingston are setting up there own.





#### Where to next.....



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#### Liveable + Resilient + Sustainable + Productive



#### Where to next.....





# Thank you

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