

IDEA SHEET

→ Victoria's Water Story

Questions

- How does Rainfall vary
- How does storage respond
- Time lag?

Ideas



Symbol Map

Stations → Circle size - rainfall mm

Spatial

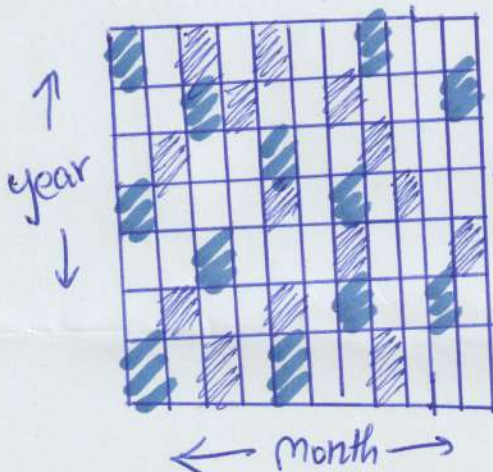
→ show rainfall distribution

Maybe just Victoria? (map)

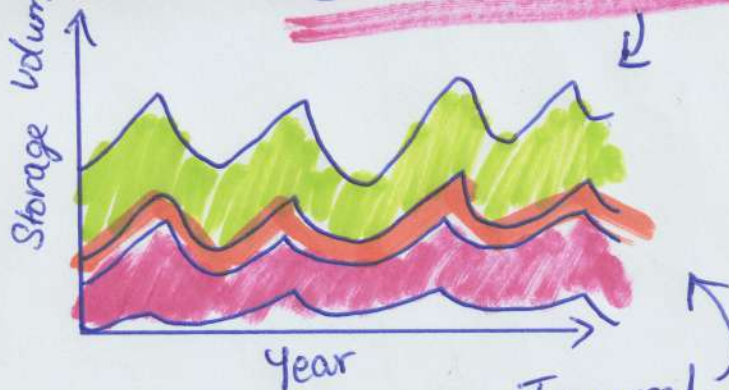
Matrix Heatmap

Year x monthly rainfall?

Temporal



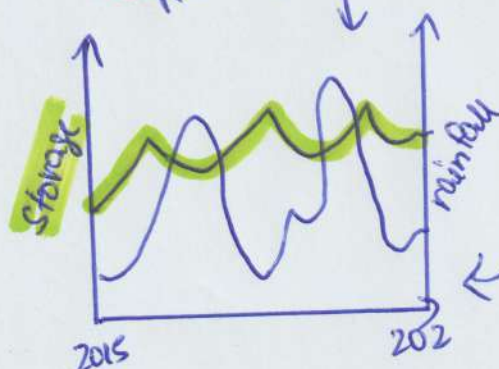
Stacked area chart



Temporal

Dual Axis line

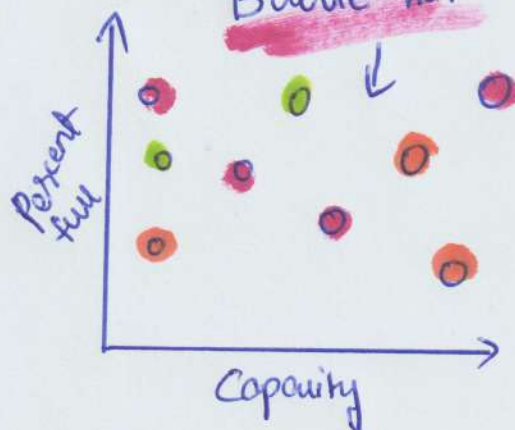
Rainfall vs storage



Temporal

Comparative

Bubble Plot



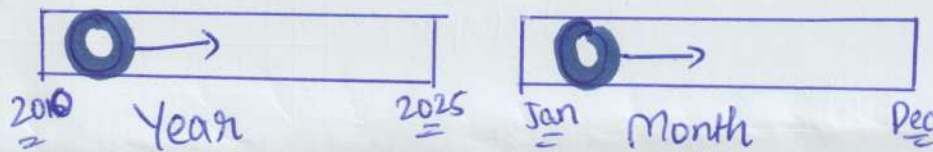
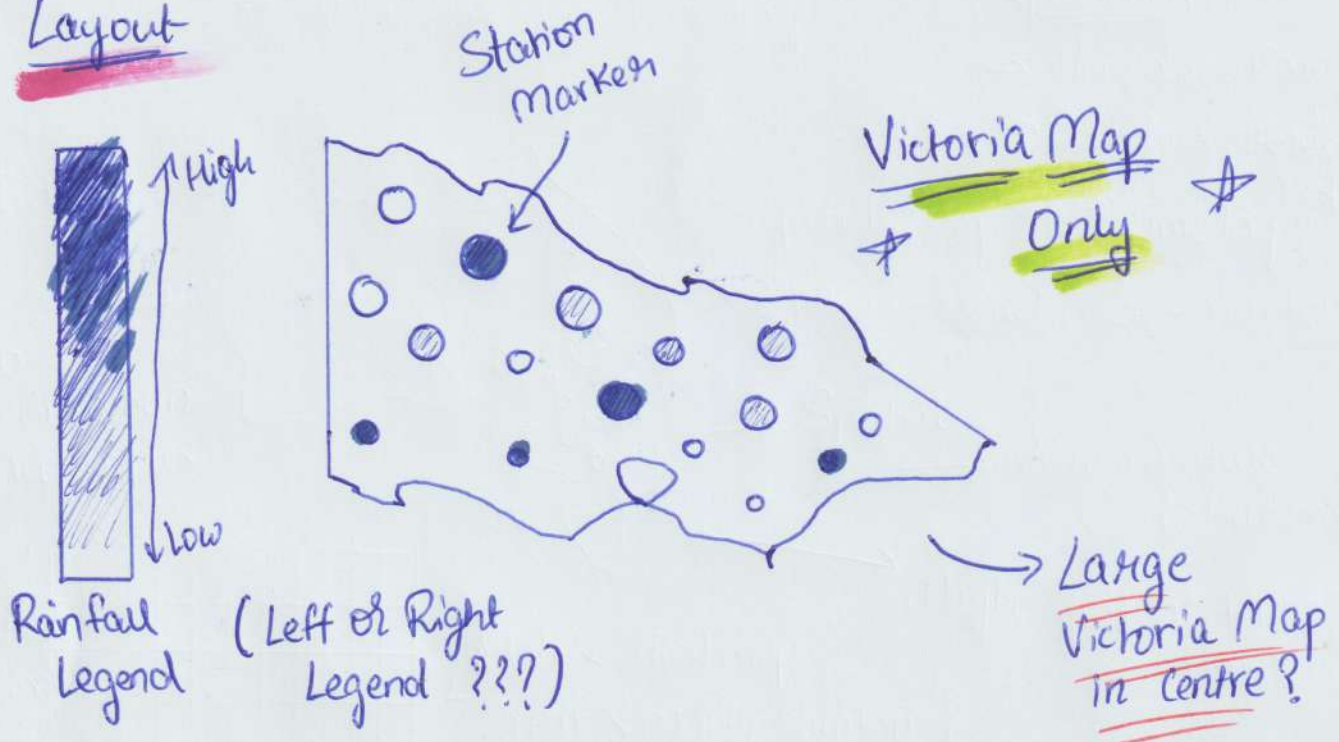
Combine

- Heatmap + map
- area chart + bubble plot
- Dual Axis for trend line

SHEET 2

Concept A (Symbol Map)

Layout



↑ Time sliders ↗

Below Map

Focus - Highlight regional rainfall inequality

Information - BOM rainfall 2010-2025 (mm); position = Station Location
Size = rainfall

Operations - Year Slider, tooltip with Station & mm, Annotations of region

Discussions → Pro

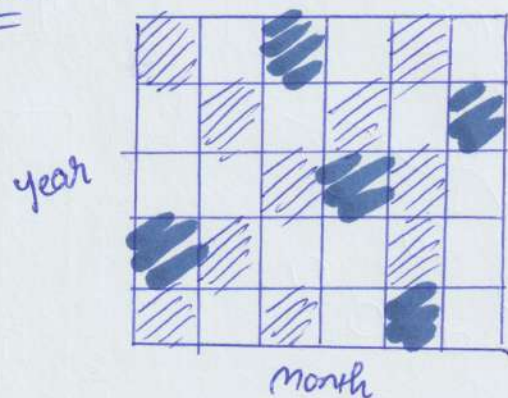
✓ Easy spatial understanding

Cons

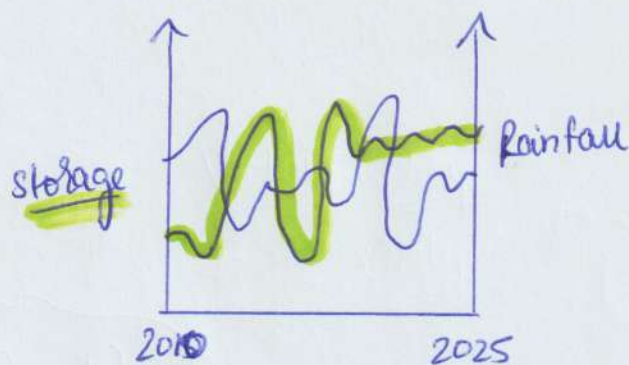
X No trend over time

SHEET 3 - Concept B (Temporal Patterns & Lag)

Layout



Matrix Heatmap
(Left)



Dual Axis line
Chart
(Right)

Focus - Show seasonality and 3-4 months lag between rain and reservoir response

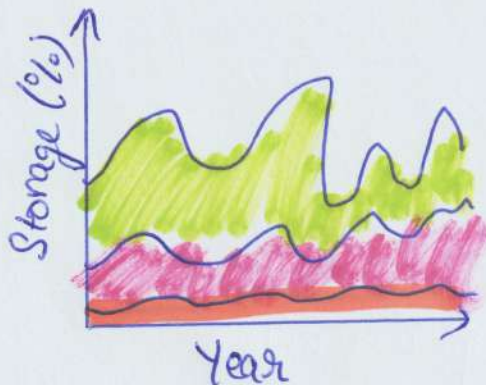
Information - Rainfall (mm), Storage (%), 2010 - 2025

Operations - Year filter, checkbox toggle rainfall/storage tooltips, annotations "2019 drought"

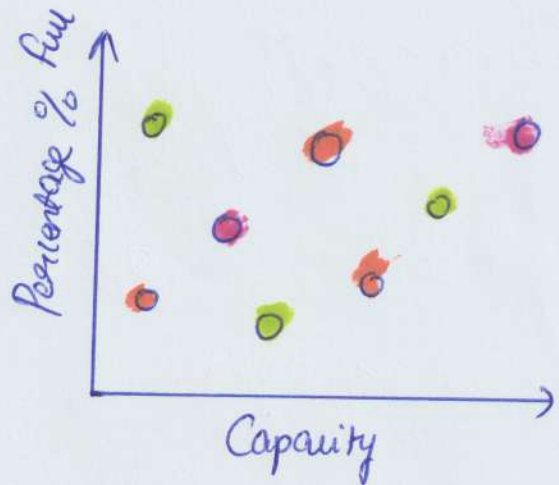
Discussions -
✓ Reveal temporal relationships
X Dense axes for long range

SHEET 4 - Concept C (Storage Systems & Capacity Paradox)

Layout



(Left) Stacked Area Chart
(Storage per system)



(Right) Bubble plot

Dropdowns →
for stacked
chart

System → All ↓
Melb. ...
Goulburn ...
↓

Focus → Explain that larger systems don't always stay
Secure - visualise capacity paradox

Information → $x = \text{Capacity (ml)}$, $y = \% \text{ full}$, size = volume,
Colour = system, time series storage data 2010-2025

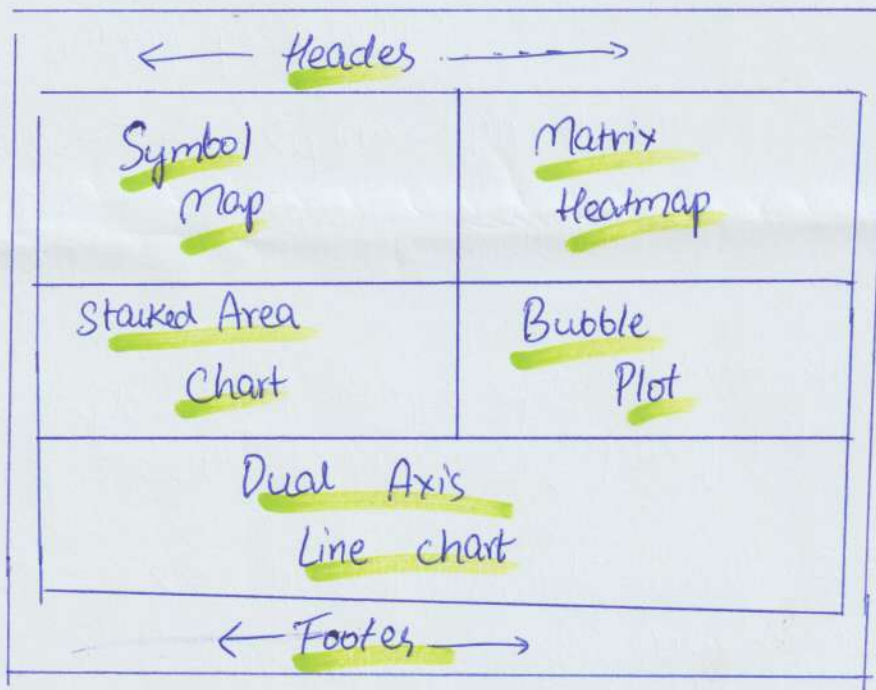
Operations - Dropdown filter "Select System", tooltips (system:
threshold line 65% % , ml)

Discussions - ✓ clear comparative story
X colour clash with many systems

SHEET 5 - Final Design Realisation (Project Layout)

Layout →

- Header - Title "Victoria's Water story", subtitle, brief intro
- Top Row - Symbol map (Rainfall stations) (left)
Matrix map (Heatmap Year x Month) (Right)
- Middle Row - Left: Stacked Area chart (system storage)
Right: Bubble Plot (Capacity vs Security)
- Bottom Row - Full width Dual Axis
(Rainfall vs Storage Lag)
- Footer - Insights + Data Sources



Focus - Tell a 15yo story of Victoria's water imbalance

Information - Rainfall (BOM mm), Storage (DELWP ML), Albers projection,
Blue = Rainfall, Storage = Green.

Operations - Year Slider + tooltip, System dropdown, Toggle checkboxes, Static annotations.

Responsive Grid, rounded cards, consistent font, clear legends & titles, annotations.