

Managing Raw Water Storages During Algal Blooms

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Goulburn-Murray Water

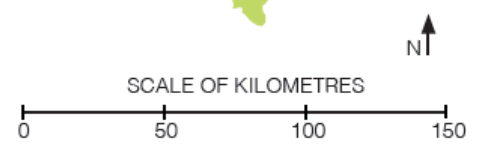
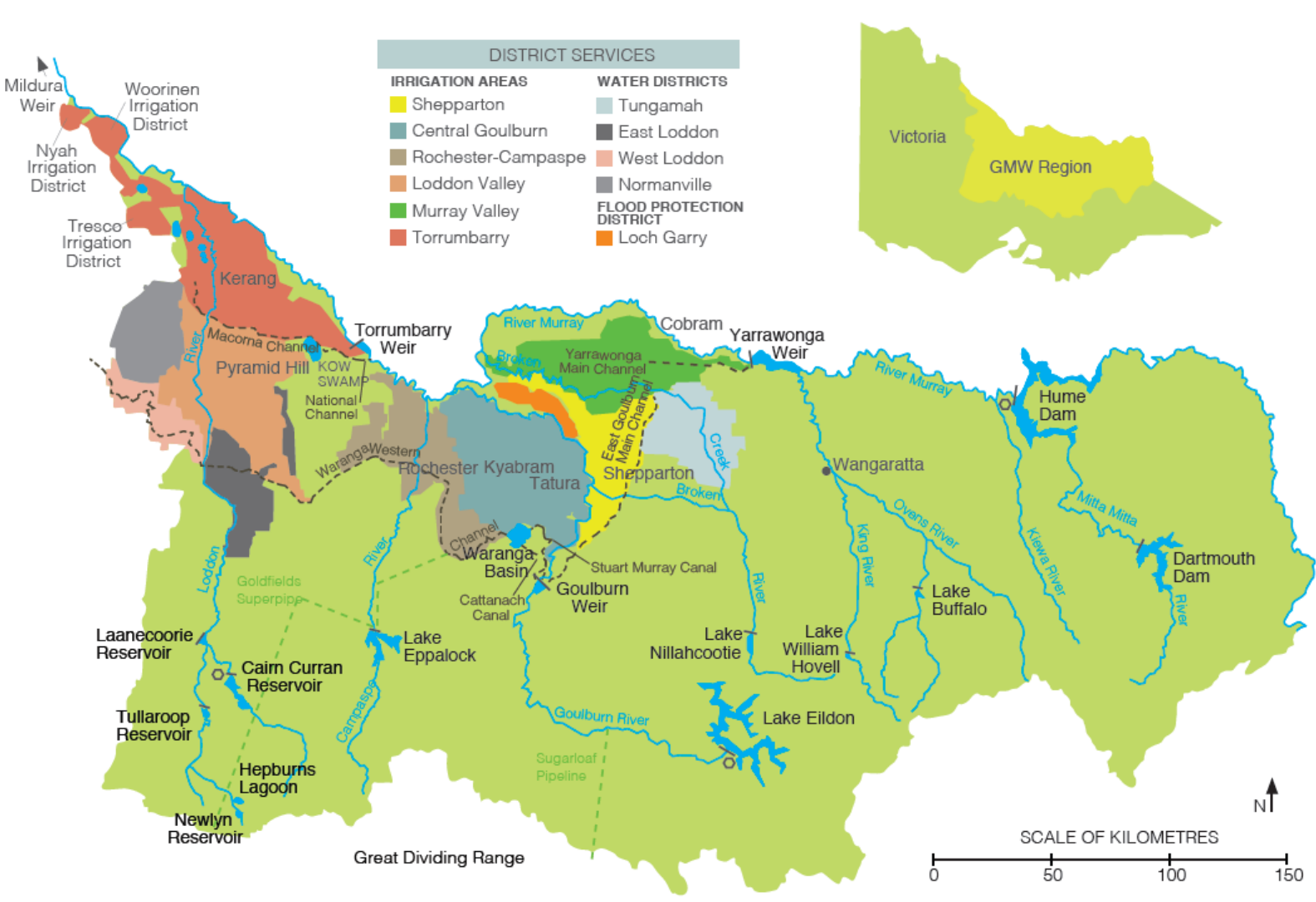
Victoria



Outline

1. GMW overview – region, assets, customers
2. Algal Management in Victoria
3. BGA Monitoring program
4. Risk reduction options
5. Managing the Response
6. Real life example.







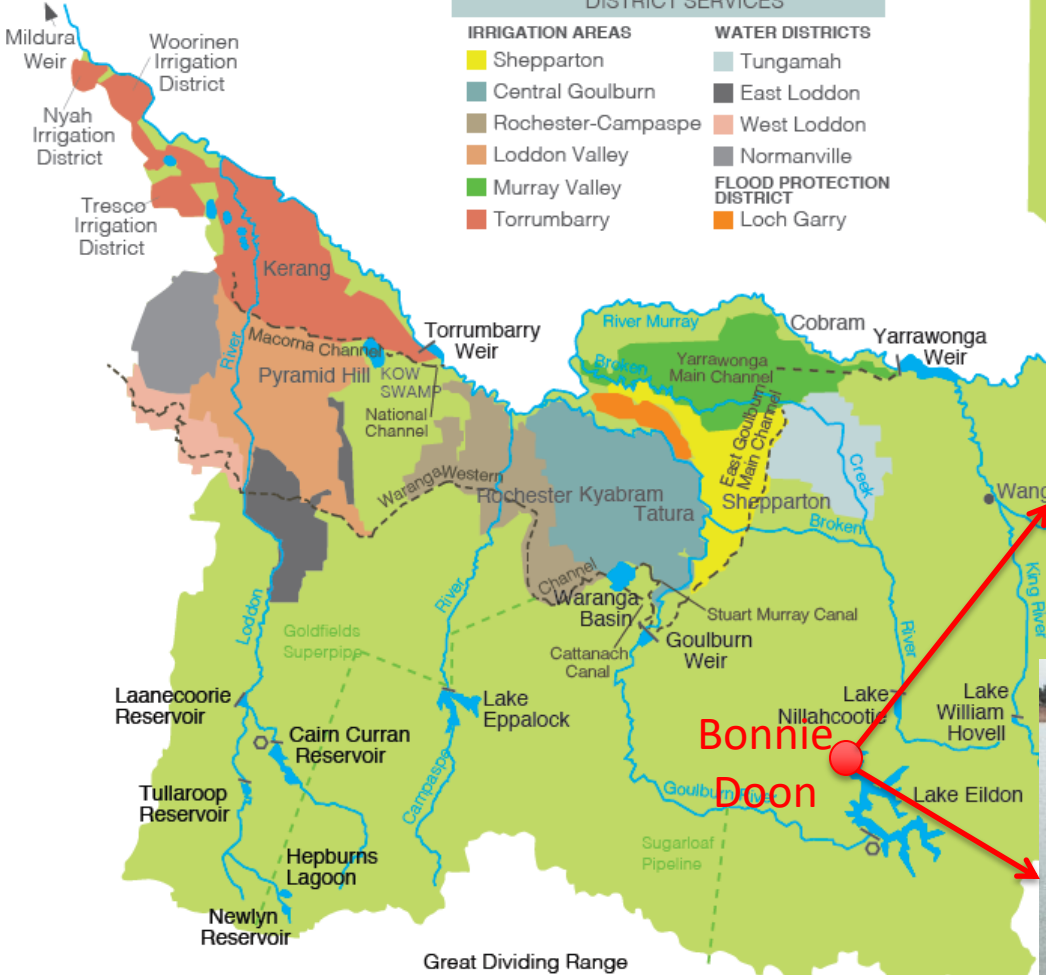
DISTRICT SERVICES

IRRIGATION AREAS

- Shepparton
- Central Goulburn
- Rochester-Campaspe
- Loddon Valley
- Murray Valley
- Torrumbarry

WATER DISTRICTS

- Tungamah
 - East Loddon
 - West Loddon
 - Normanville
- FLOOD PROTECTION DISTRICT
- Loch Garry



Lake Wangaratta Dam



Algal Management in Victoria



- The Victorian Government sets the rules
- Warnings are issued when triggers are exceeded
- Goulburn-Murray Water has added responsibilities
 - regional coordination
- Bloom scenario ensures preparedness



BGA Monitoring program



- Scheduled monitoring program
- Risk based monitoring approach
- BGA converted to biovolumes to make decisions
- Recreational risk is primary focus
- Share BGA results with town water suppliers



Risk Reduction Strategies



- Increase monitoring
- Our lakes are too big & precious to treat
- Change in offtake depth
- Source change



Managing the Response

- We tell people it's there!
- www.g-mwater.com.au/news/bga
- Standard website message:

GMW is warning the public to avoid contact with water in Lake GMW after monitoring detected high levels of blue-green algae.

Warning signs have been placed at major recreational areas.

It is recommended that alternative supplies for stock drinking be used.

Stock and pets should be kept away from the water.

Watering of edible garden plants should be avoided.

For further information on the warning see our [frequently asked questions](#).



Warning Blue-Green Algae

Contact with the water may cause
harm to humans and animals



For further information contact:

www.gmwater.com.au 1800 013 357

Example – Tungamah Dam



- 140 ML dam supplies stock district via pipeline
- Filled from main channel
- Pipeline can also be supplied direct from main channel Sep-May
- Dam bloomed for first time in early 2017
- Risk to stock? no guidelines (*we're working on that*)



Tungamah Dam options



- Selective filling of dam, avoid 'first flush' runoff.
- Supply pipeline direct from main channel as long as possible.
- Empty dam, wait & refill late in autumn.
- Cover dam – 4 Ha \$\$\$!
- Treat with Phoslock or Alum Sulphate – approvals?
- Do nothing.

For now:

- Selective fill & supply from dam while low BGA.
- Supply direct from channel if BGA high in dam.
- Warn customers if need to supply from dam with BGA.



Thank you

Contact us



1800 013 357



www.gmwater.com.au



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