



Australian Government



Key environmental assets in the Murray-Darling Basin

Basin Planning Process

- Identify Key Environmental Assets and Key Ecosystem Functions
- Determine environmental water requirements
- Calculate the sustainable diversion limit
- Assess socio-economic impact
- Consider alternative scenarios
- Implement through Environmental Watering Plan

The Basin Plan

The Basin Plan is to provide for ;

- the integrated management of the Basin water resources
- establishment and enforcement of environmentally sustainable limits on the quantities of surface and ground water that may be taken from the Basin water resources

The Water Act defines environmentally sustainable level of take as the level of extraction that, if exceeded, would compromise;

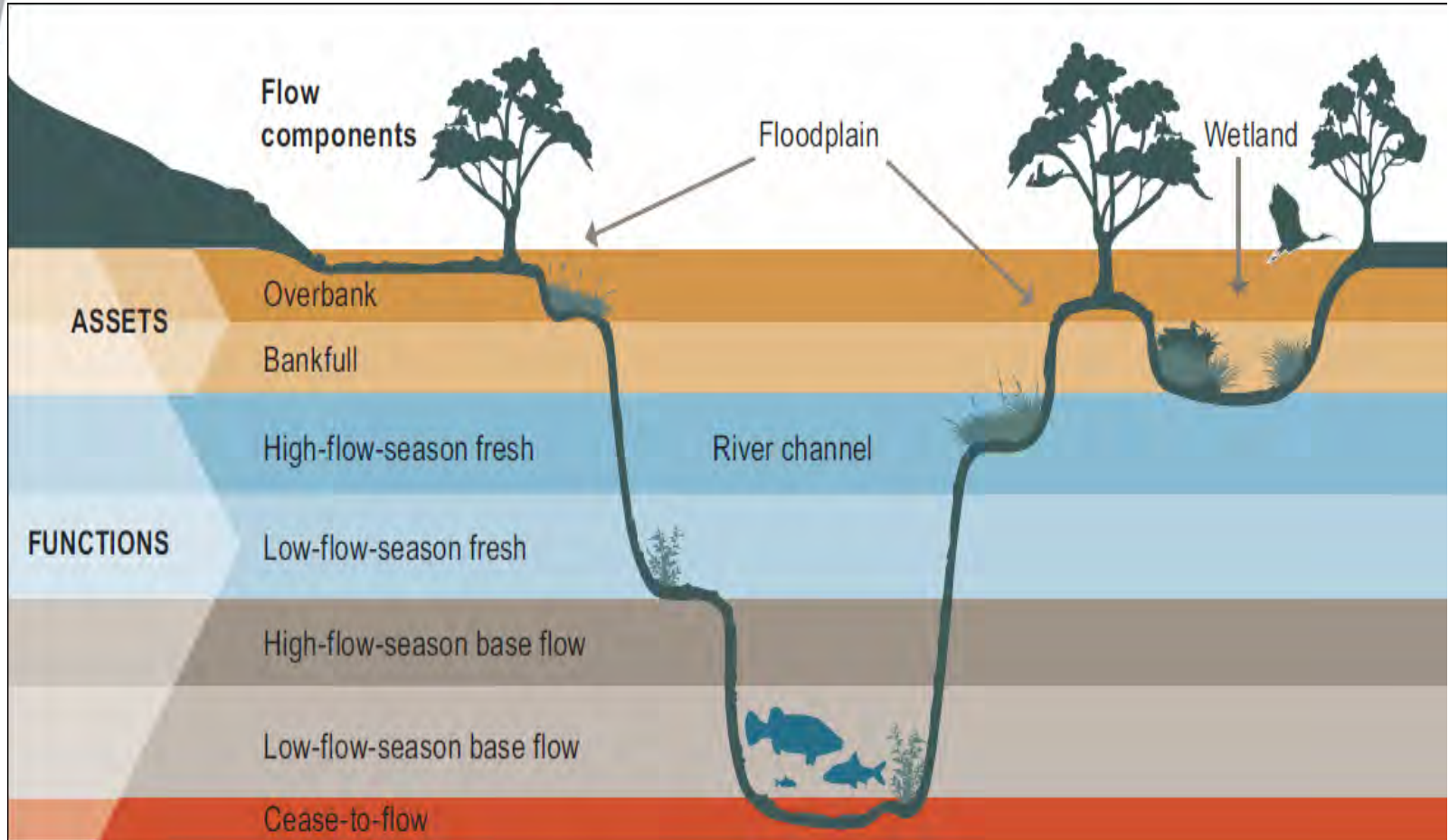
- key environmental assets (KEA);
- key ecosystem functions (KEF);
- the productive base;
- key environmental outcomes.



Assets and Functions

- Environmental assets are:
 - Water dependant ecosystems
 - Sites with ecological significance
 - Ecosystem services
- To determine ESLT needs a flow regime
 - Key environmental assets define overbank or high flows
 - Key ecosystem functions define in-stream flow or low flows

Integration of Assets and Functions



What is a “Key” Asset

Criteria to determine what is key

1. International significance e.g. Ramsar listed sites
2. Natural, near natural, rare or unique
3. Critical habitat (e.g. drought refuge, breeding sites)
4. Threatened species
5. Sites of high biodiversity

KEA Information sources

- Ramsar sites
- Native fish distribution data
- DEWHA threatened species and ecological communities data
- Reviewed literature
- Jurisdictions identified KEAs

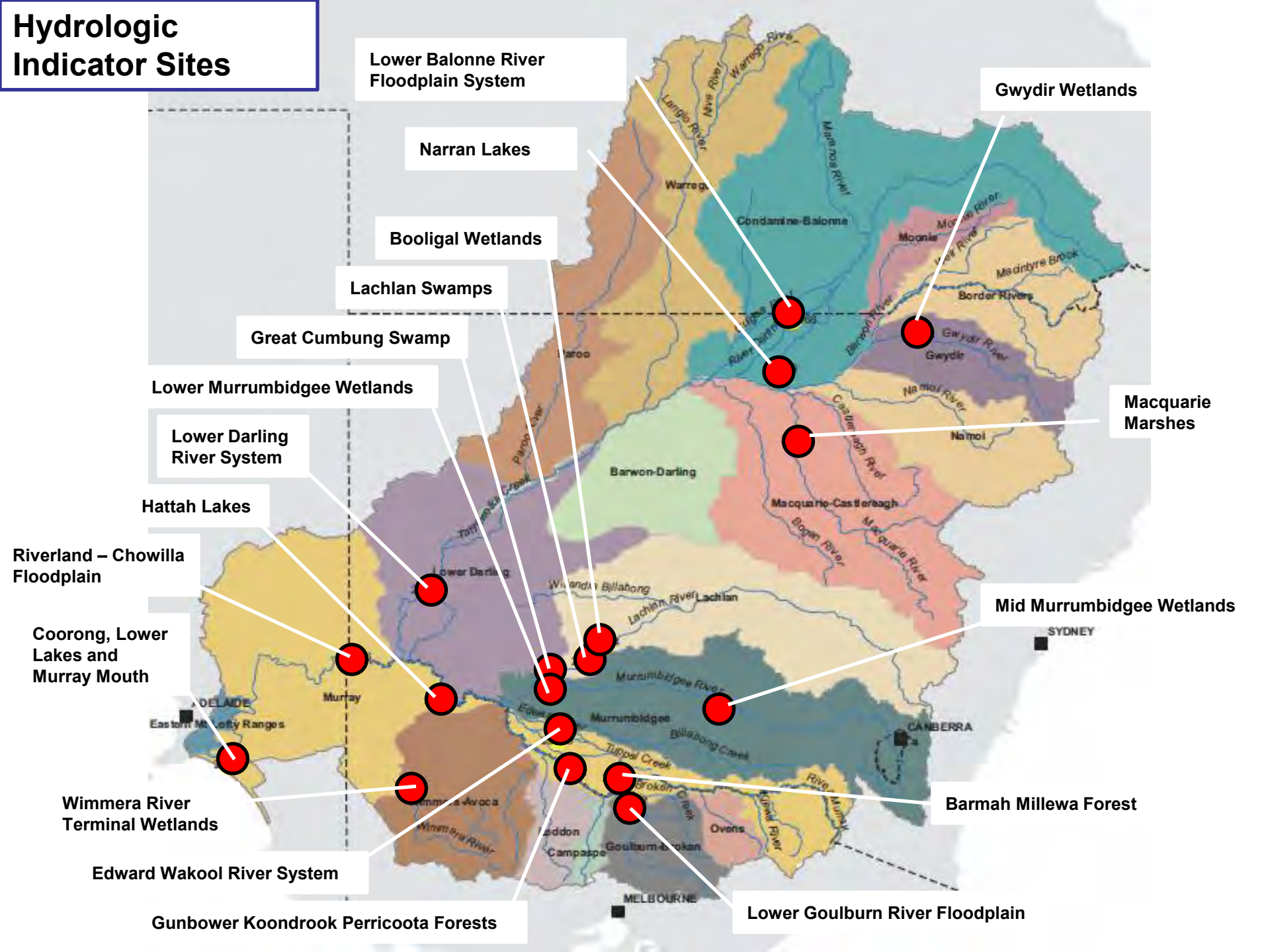
Key Environmental Assets

- Preliminary outcomes
 - 1,000s of key environmental assets
 - All spatially defined
 - Asset database
- Difficulty – using 1000s of assets to determine high flows is impractical and unhelpful
- Solution – Hydrologic Indicator Sites

Hydrologic Indicator Sites

- 18 sites throughout the Basin have been used to determine high flows needed to sustain river health
- It is assumed that high flows for these assets will be enough to provide water to other assets
- They **do not** indicate a higher priority than other assets
- For more information visit http://www.mdba.gov.au/basin_plan/water-assessment-report

Hydrologic Indicator Sites



Hydrologic Indicator Sites

Hydrologic indicator sites:

- Are key environmental assets
- Are relatively well documented and studied
- Require high volumes of environmental water
- Have a wide geographic spread, focussing on end of valley locations or representation of key reaches

Environmental management

Environmental watering plan;

- Coordinate the management of environmental water
- Protect and restore wetlands and other environmental assets
- Protect biodiversity dependent on Basin water resources



The environmental watering plan

Must specify;

- Overall environmental objectives for water dependent ecosystems of the Basin
- Targets to measure progress towards achieving the environmental objectives
- An environmental management framework for environmental water
- The methods to be used to identify environmental assets for environmental watering;
- Principles and methods for prioritising environmental watering
- Principles to be applied in environmental watering

Conclusion

- Fish data was an important component of KEAs
- Assets are not ranked. The 18 HIS assets are hydrologic indicators
- The KEA network is preliminary and will be improved in due season

The Guide to the Basin Plan will be released on 8th October