

Greater Shepparton City Council



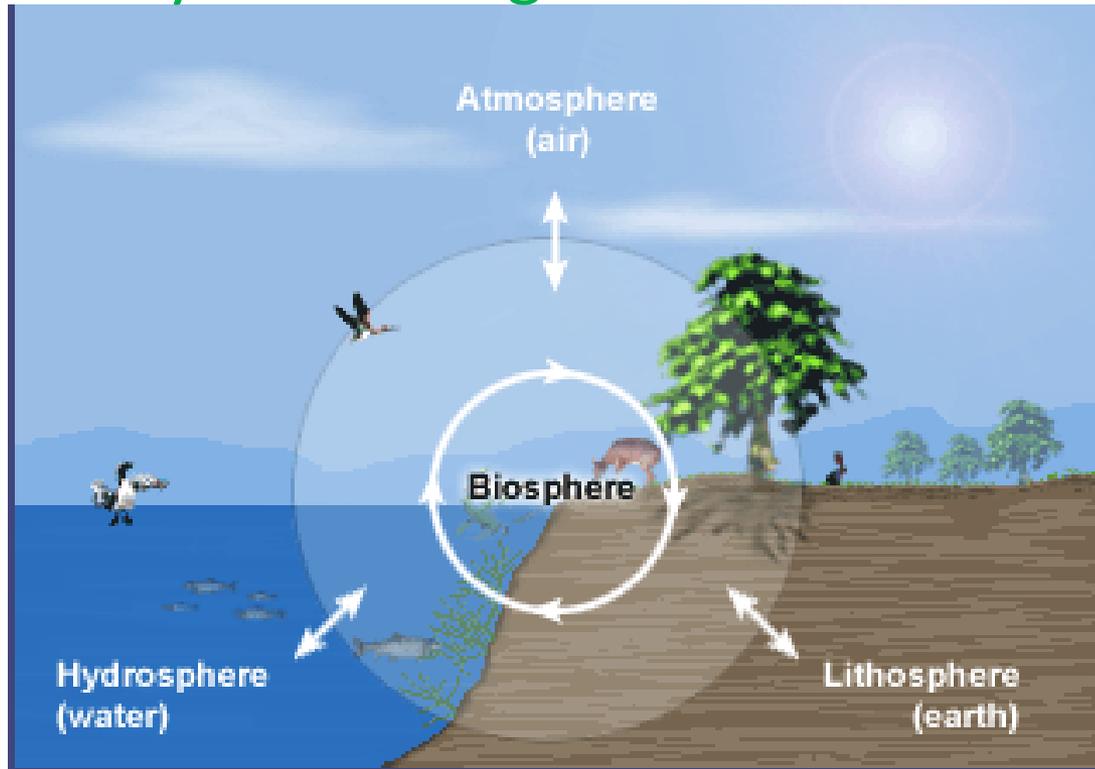
Travis Turner

Sustainability and Environment Officer

Presentation overview

- A general overview of:
 - Our environment
 - What is sustainability
 - our local environment
- Some examples of Council environmental projects including the Environmental Sustainability Strategy

- The natural environment is an incredibly complex system of living and non-living components all constantly interacting with one another.

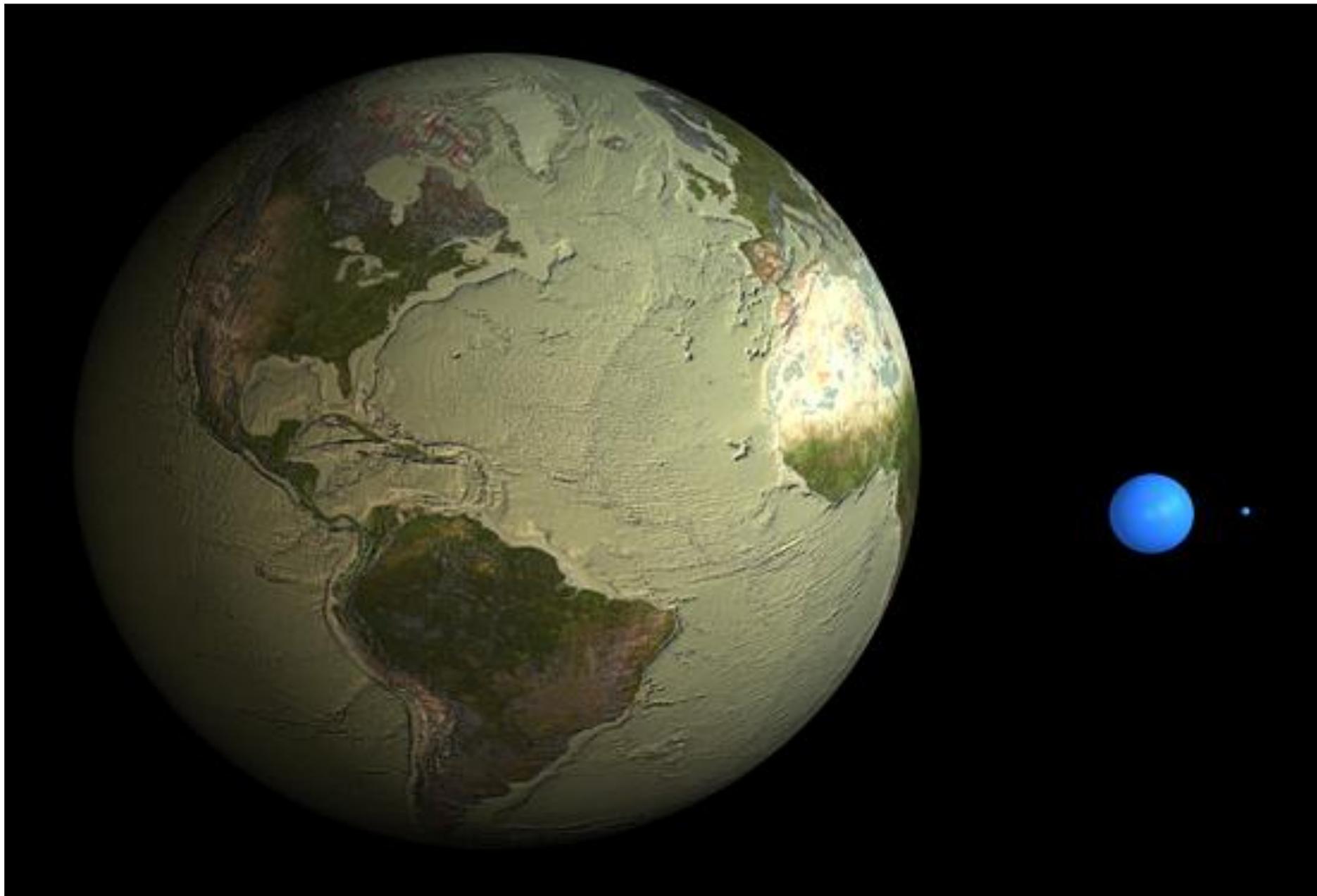


- [Yellow Stone National Park – how wolves change rivers](http://www.youtube.com/embed/ysa5OBhXz-Q?feature=player_embedded)
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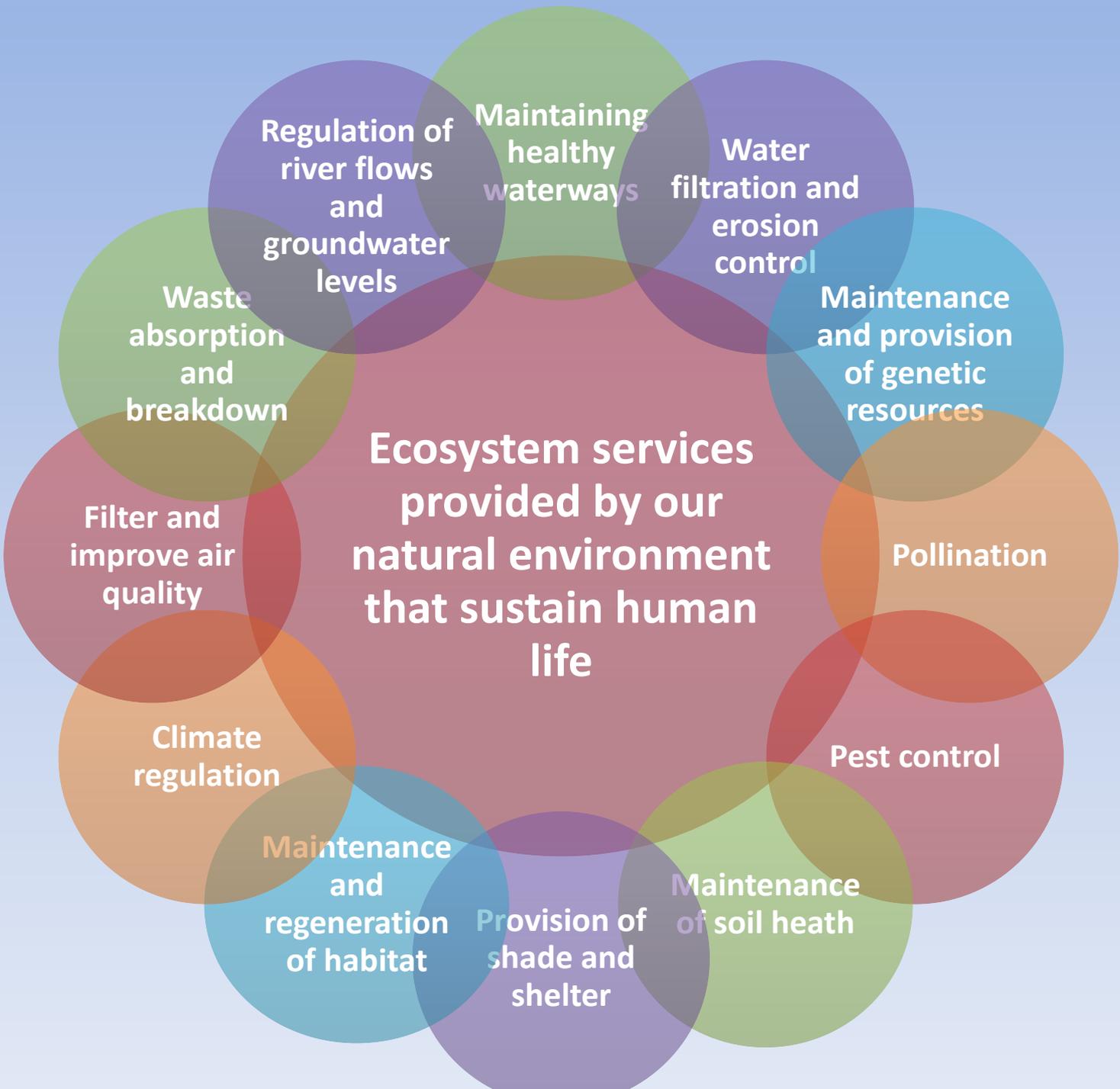
- “There is no planet B”
- Finite resources available to sustain all life on Earth.

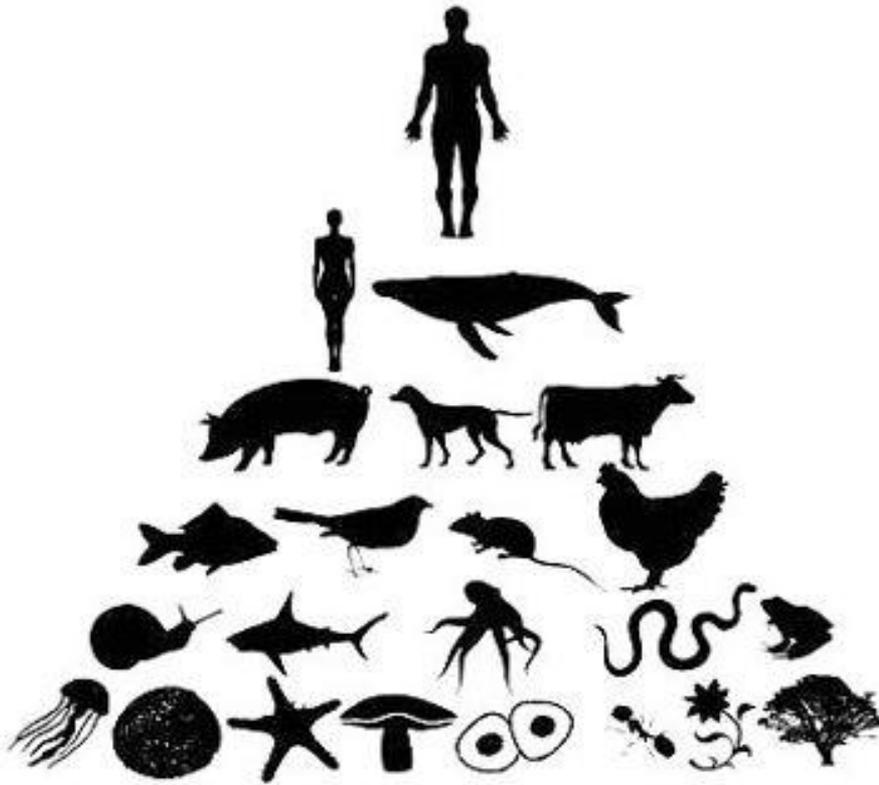




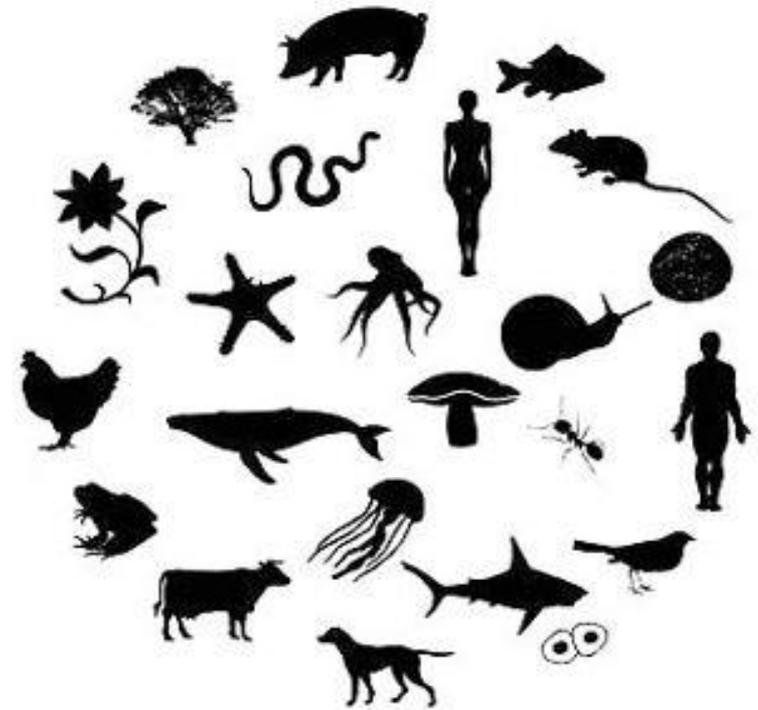








**The traditional
view**



**A more realistic
representation**



What does sustainability mean?

Sustainability:

Refers to three broad themes, **economic, social and environmental**, that must all be coordinated and addressed to ensure the long term viability of our **community** and the **natural environment**.

Sustainable Development:

Seeks to meet the needs and aspirations of the present generation without compromising the ability of future generations to meet theirs.



Our Environment

**Our
Society**

**Our
Economy**

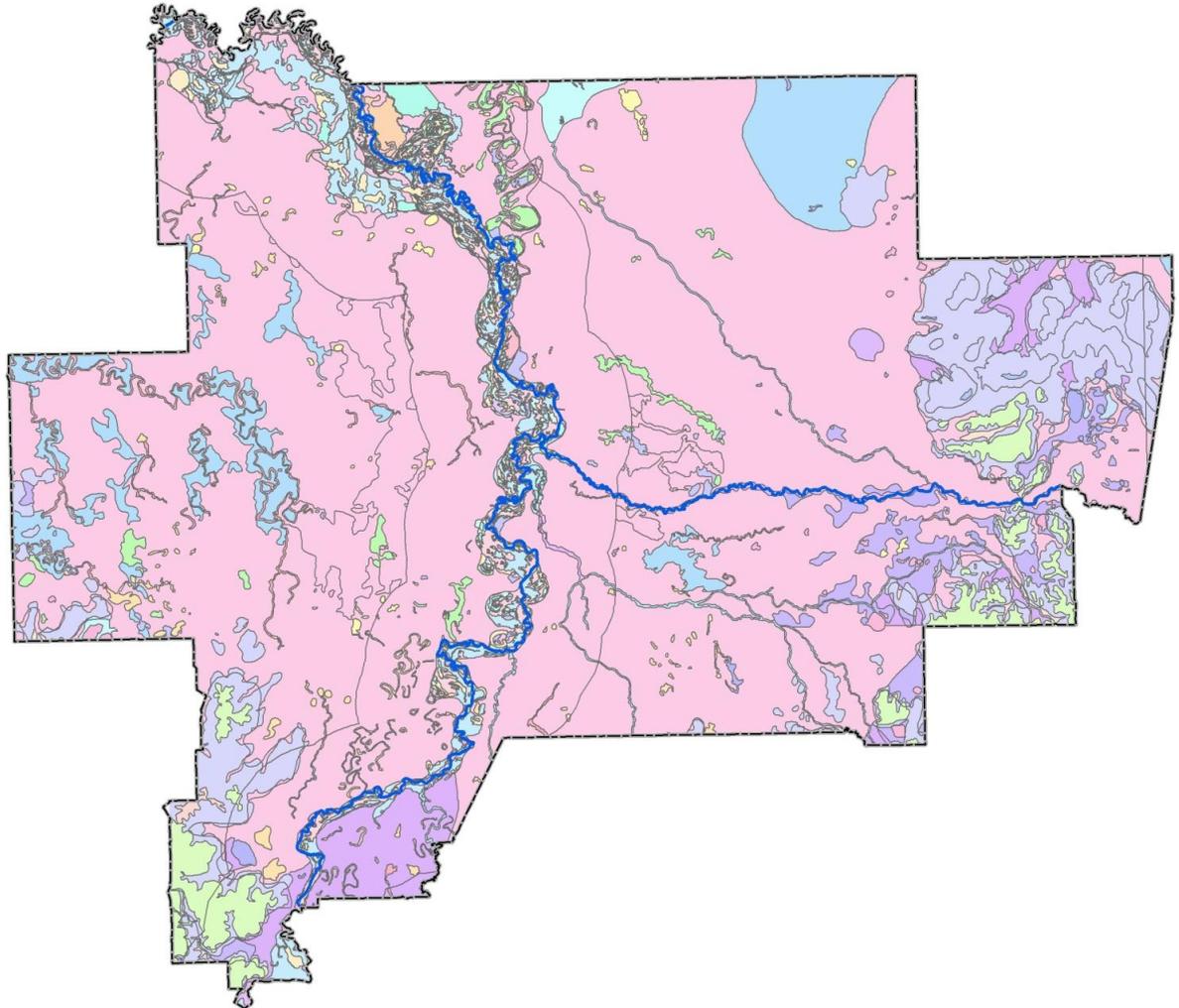


Our biodiversity assets

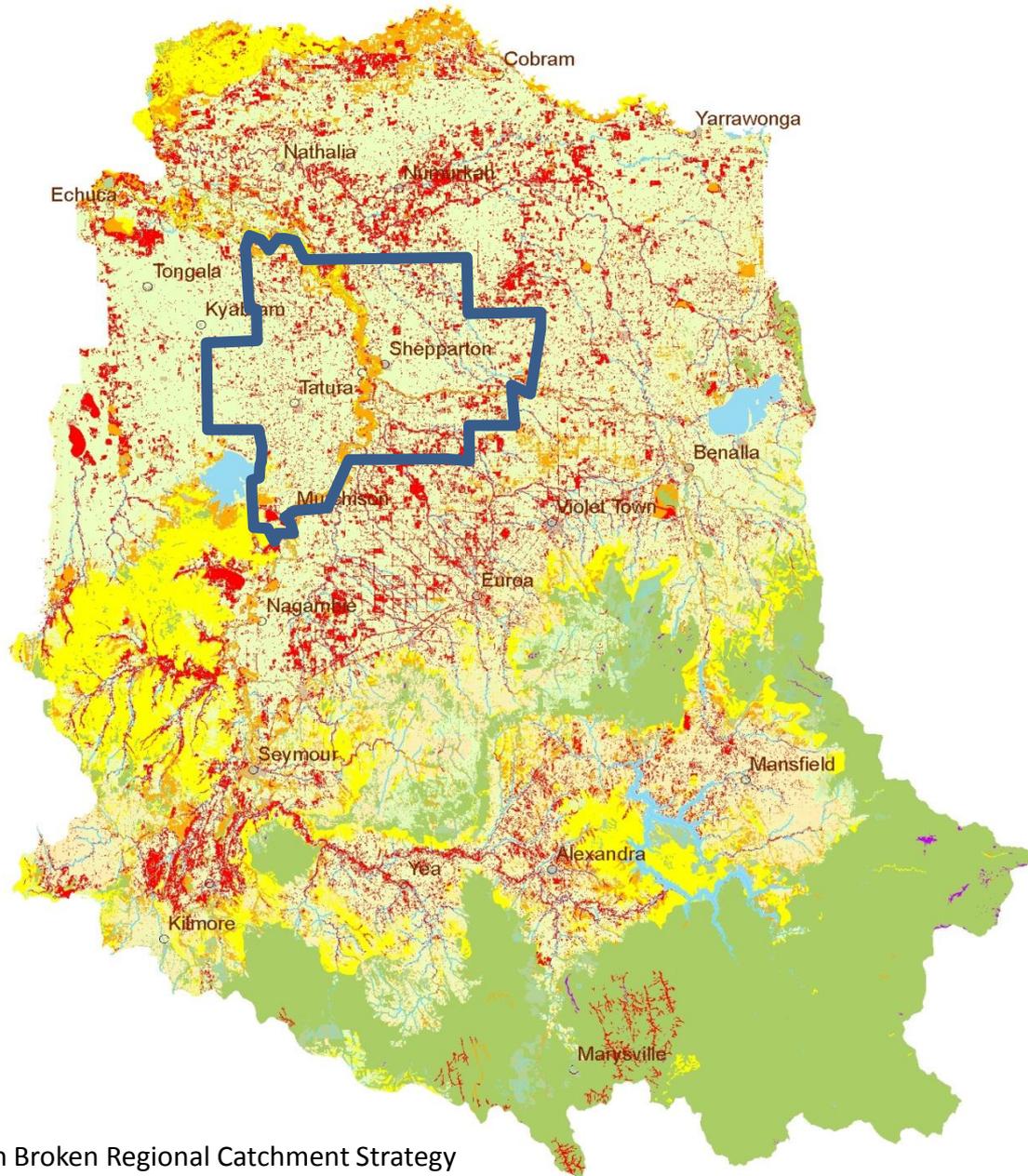
- The **diversity of fauna** within Greater Shepparton **has greatly declined** since European settlement with many species now extinct from the area.
- Almost **325 indigenous fauna species** recognised to have distribution ranges **within the City of Greater Shepparton**.
- Approximately 22% or 72 of Greater Shepparton's fauna species are listed as VROTS, 45 species are listed under *The FFG Act 1988* and eight are listed under *The EPBC Act*
- **Almost 720 flora species** exist in our municipality. Unfortunately **only 61% are indigenous** to our region.

EVC

- Alluvial Terraces Herb-rich Woodland
- Alluvial Terraces Herb-rich Woodland/Creekline Grassy Woodland Mosaic
- Alluvial Terraces Herb-rich Woodland/Plains Woodland/Gilgai Wetland Complex
- Billabong Wetland Aggregate
- Box Ironbark Forest
- Creekline Grassy Woodland
- Drainage-line Aggregate
- Drainage-line Aggregate/Riverine Swamp Forest Mosaic
- Floodplain Riparian Woodland
- Floodplain Riparian Woodland/Sedgy Riverine Forest Mosaic
- Floodplain Wetland Aggregate
- Floodway Pond Herbland
- Grassy Dry Forest
- Grassy Woodland
- Grassy Woodland/Alluvial Terraces Herb-rich Woodland Mosaic
- Low Rises Woodland
- Lunette Woodland
- Mosaic of Drainage-line Aggregate/Sedgy Riverine Forest-Riverine Swamp Forest Complex
- Plains Grassland
- Plains Grassland/Plains Grassy Woodland/Gilgai Wetland Mosaic
- Plains Grassy Wetland
- Plains Grassy Woodland
- Plains Grassy Woodland/Gilgai Wetland Mosaic
- Plains Woodland
- Plains Woodland/Herb-rich Gilgai Wetland Mosaic
- Red Gum Swamp
- Red Gum Swamp/Plains Grassy Wetland Mosaic
- Riverine Grassy Woodland
- Riverine Grassy Woodland/Plains Woodland/Gilgai Wetland Complex
- Riverine Grassy Woodland/Riverine Swampy Woodland Mosaic
- Riverine Swamp Forest
- Riverine Swamp Forest/Sedgy Riverine Forest Mosaic
- Riverine Swamp Forest/Sedgy Riverine Forest-Riverine Swamp Forest Complex
- Riverine Swampy Woodland
- Rushy Riverine Swamp
- Sand Ridge Woodland
- Sandstone Ridge Shrubland/Box Ironbark Forest Mosaic
- Sandy Beach
- Sedgy Riverine Forest
- Shallow Sands Woodland
- Shallow Sands Woodland/Plains Woodland Mosaic
- Spike-sedge Wetland/Tall Marsh Mosaic
- Tall Marsh/Open Water Mosaic
- Water Body - Fresh
- Wetland Formation

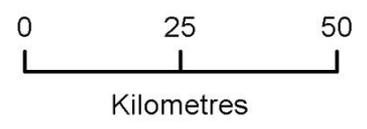
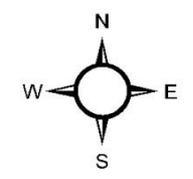


Prior to European settlement our landscape contained a richly diverse and complex mosaic of various EVC's but around 80% of the Greater Shepparton landscape contained EVC 803 - Plains Woodland



BIOREGIONAL CONSERVATION STATUS OF EVCs

- Least Concern
- Depleted
- Vulnerable
- Endangered
- Rare



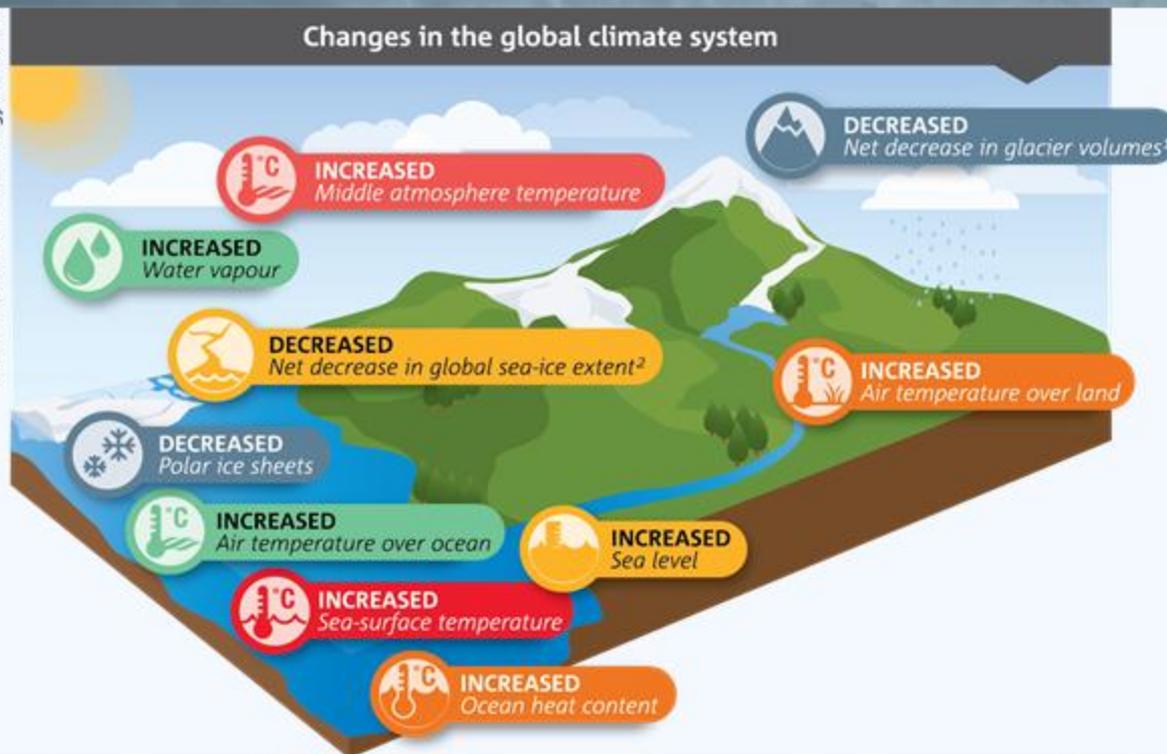
Source: Goulburn Broken Regional Catchment Strategy
2012-2018 Draft (GB CMA 2012)

Our water resources



Changes in the global climate system

Source: Bureau of Meteorology and CSIRO



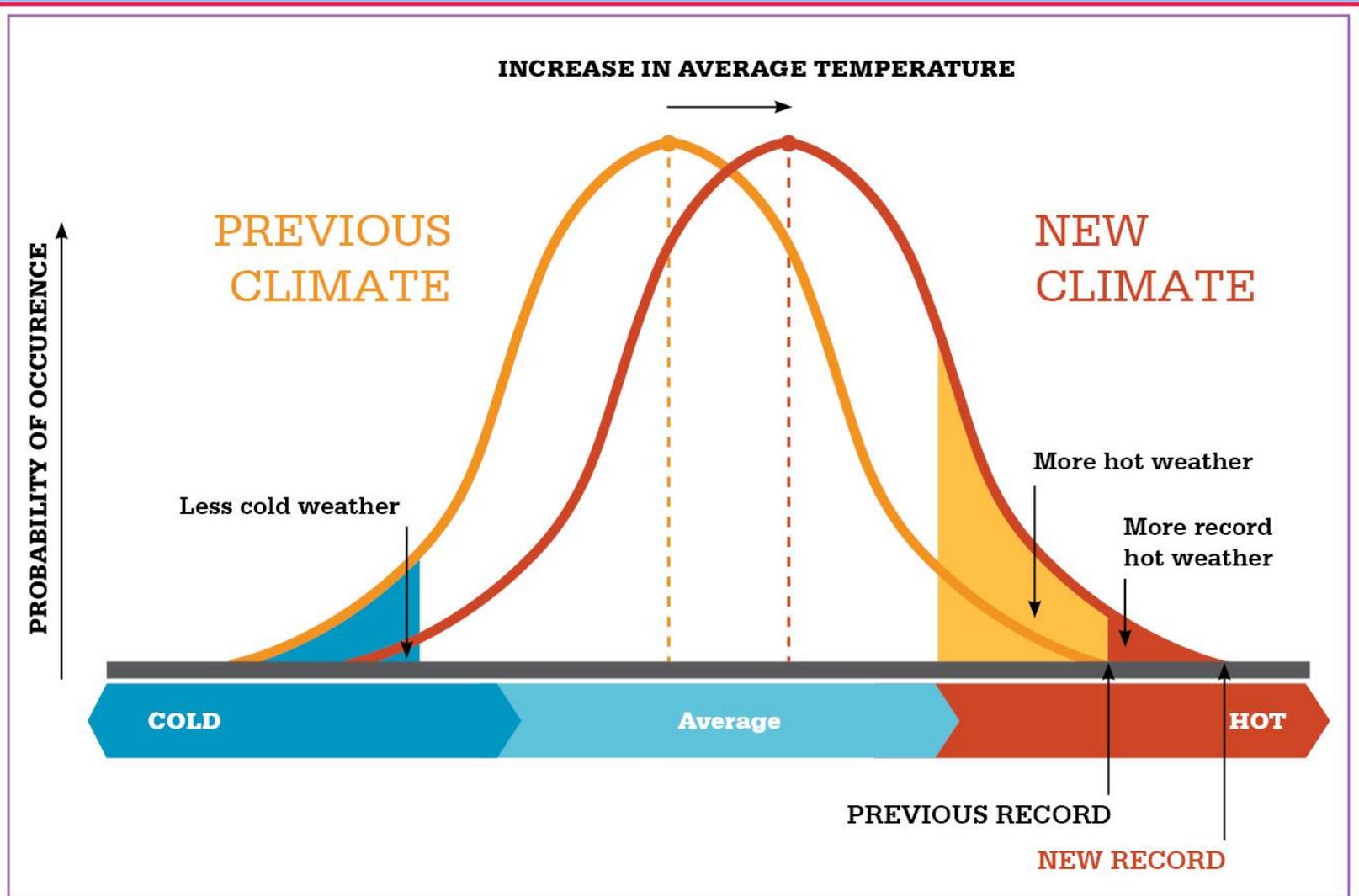
Global mean temperature has risen by 0.85°C from 1880 to 2012.

The amount of heat stored in the global oceans has risen, and global mean sea level has increased 225 mm from 1880 to 2012.

1. With regional variation (almost all glaciers worldwide losing mass but some gaining) but overall net loss.
2. With regional variation (large loss in the Arctic, small net gain in the Antarctic) but overall net loss.



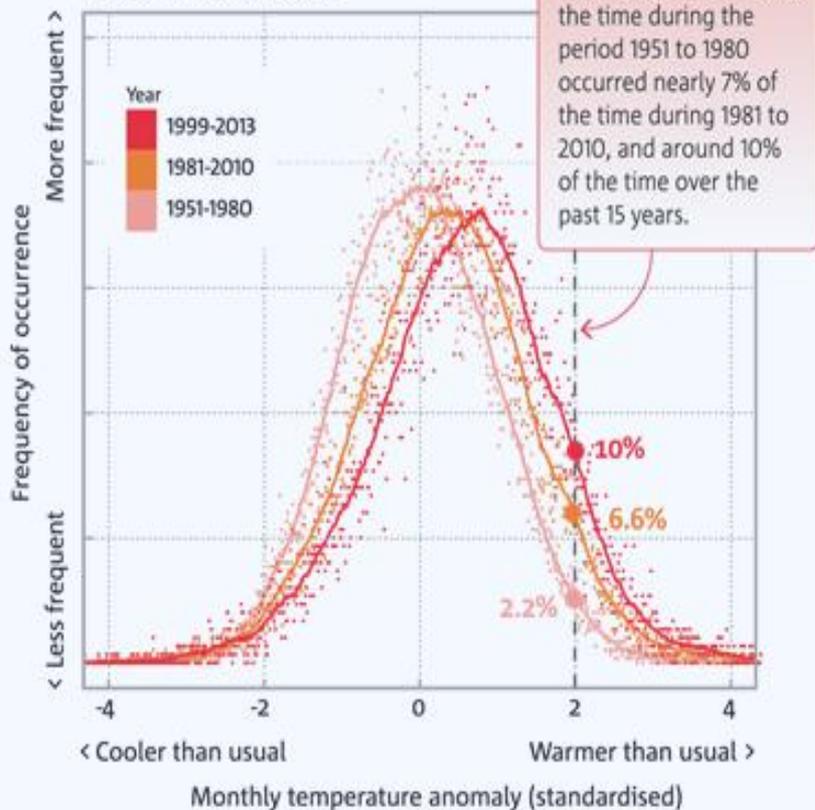
Australian Government
Bureau of Meteorology



Source: Modified from IPCC, 2007

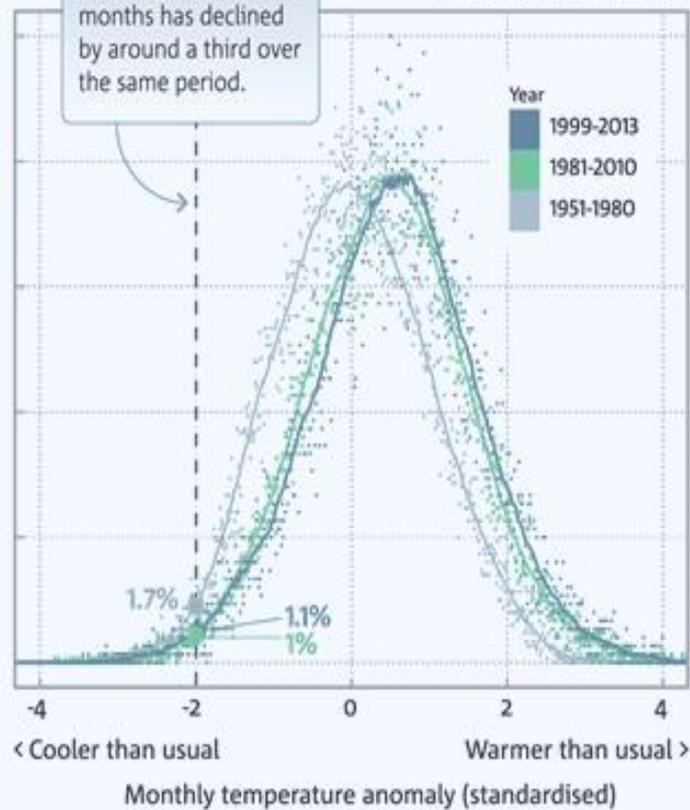
Distribution of monthly temperatures

Australian monthly maximum temperature



At the same time the frequency of very cool months has declined by around a third over the same period.

Australian monthly minimum temperature

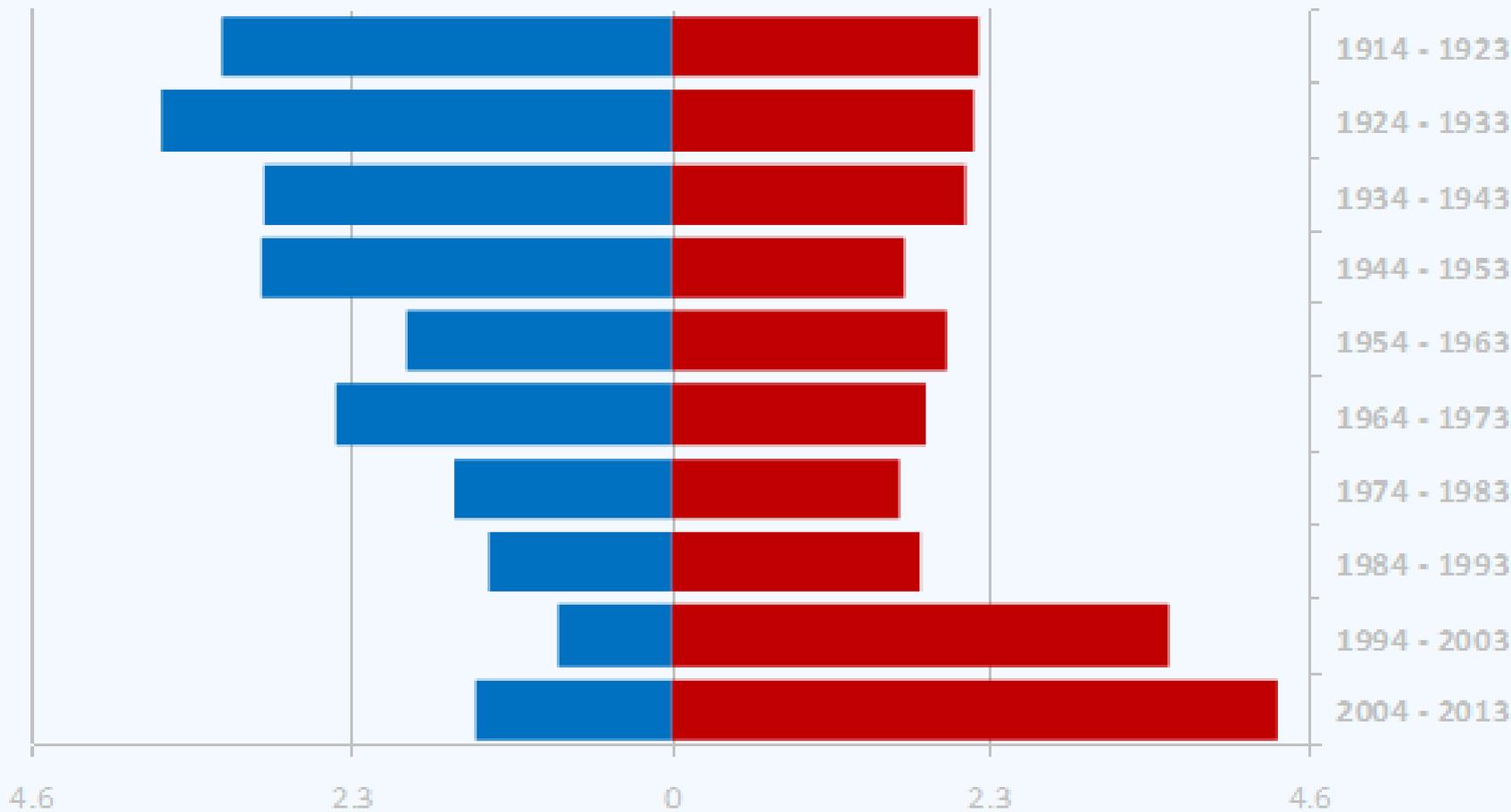


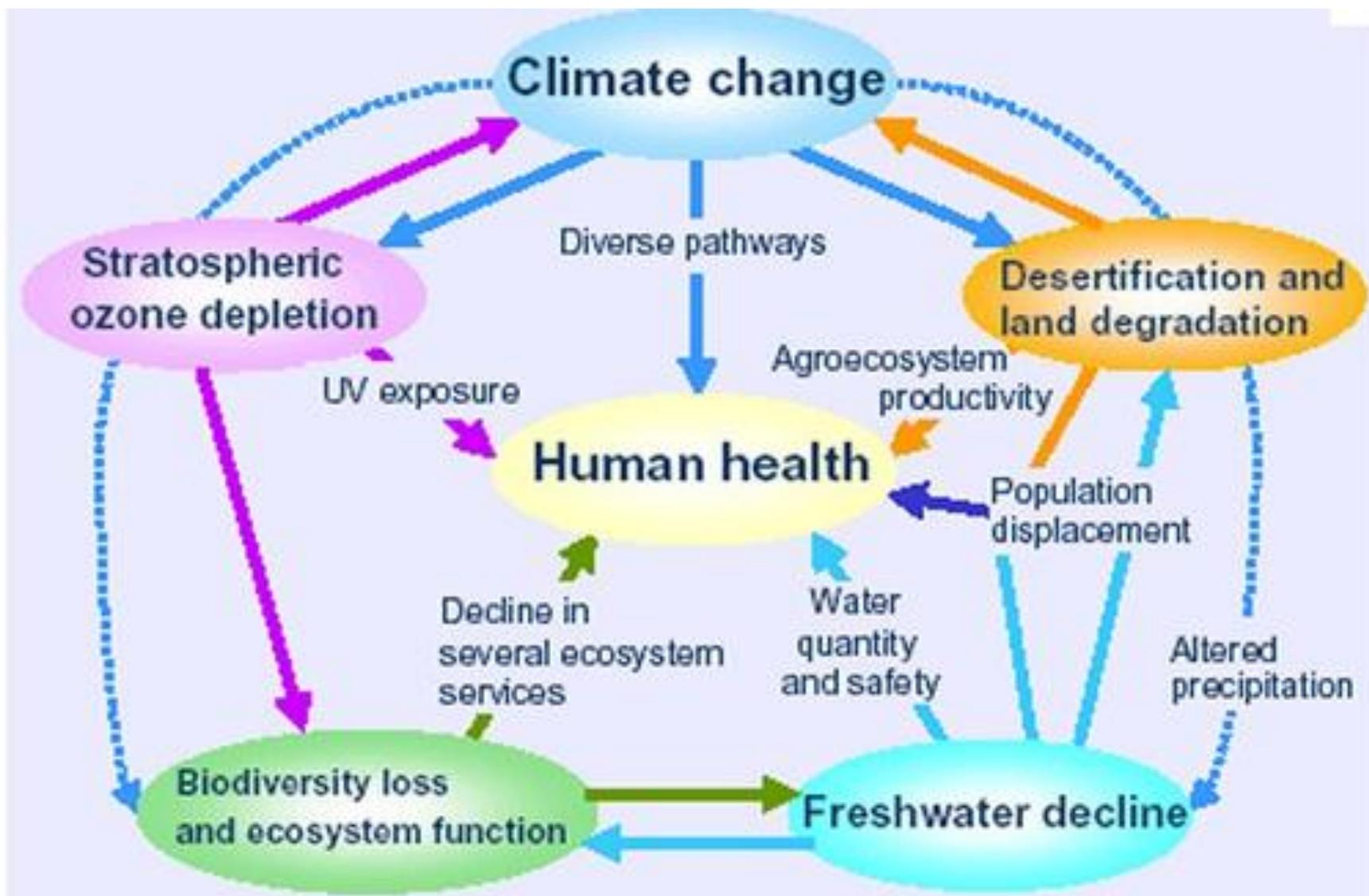
Source: Bureau of Meteorology



Number of coldest on records

Number of hottest on records





Greater Shepparton Greater Environment

- Councils key environmental management areas
 1. Water management
 2. Energy management
 3. Waste management
 4. Land and biodiversity management

Community Environmental Values and Behaviours Survey

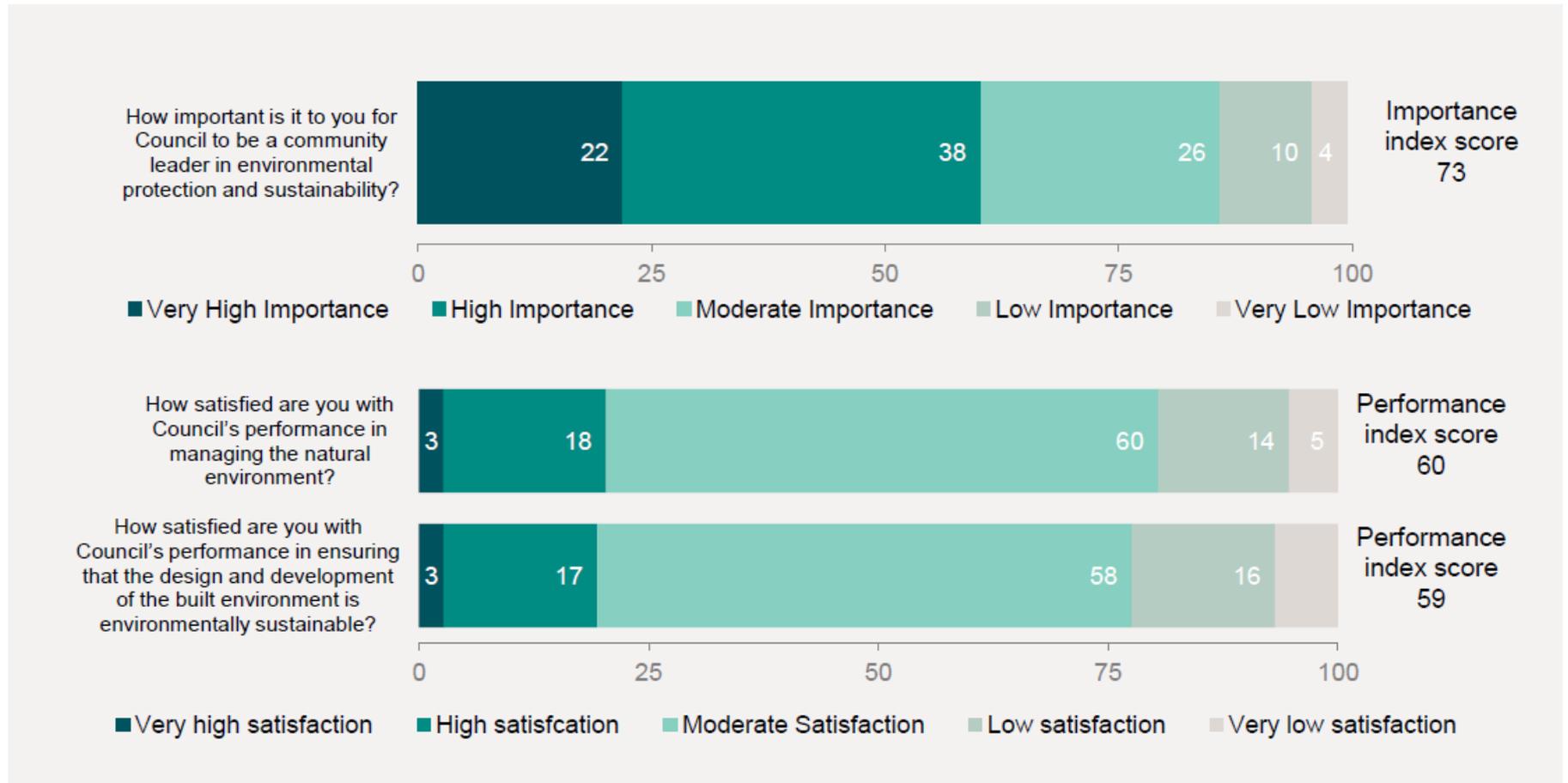


- A total of 143 residents participated in this survey which was available via a number of avenues.

What does Council currently do to protect and enhance our environment?	Percentage of respondents
Protection and revegetation of native vegetation on roadsides and Council reserves	21%
Unsure / don't know	18%
Parks & garden maintenance	16%
Waste management	13%
Not much / very little / nothing	12%
Annual tree plantings / plant trees	11%
Protection of native vegetation through the planning scheme	10%
Develop and implement environmental management policies and strategies	9%
Community education and awareness programs	9%



60% of residents consider it highly important that council is a community leader in environment and sustainability management



However, in contrast almost 60% of Shepparton residents are only moderately satisfied with council's current performance in the area of environmental protection and sustainability.

Council's commitment to sustainability



“The Councillors and all staff of the Greater Shepparton City Council are committed to the achievement of a sustainable way of life for current and future generations through a shared understanding of sustainability.”

“Greater Shepparton 2030 – the regional centre distinguished by the range of its sustainable achievements”

➤ **A sample of Council's many environmental sustainability programs, policies and projects.**

- Sustainable Water Use Plan
- Crouching Emu Revegetation Project
- ECOBuy - Sustainable Purchasing Policy
- ICLEI – Water Campaign
- National Tree Day
- Dookie Biolinks Project
- Earth Hour
- River Connect coordinator
- National Tree Day
- Waste Management Strategy
- Sustainable Decision Making Policy
- Domestic Wastewater Management Plan
- Roadside Management Strategy
- Stormwater Management Plan
- ICLEI – Cities for Climate Protection Plus
- Stormwater education officer
- Goulburn Broken Greenhouse Alliance
- Water Sensitive Urban Design
- Climate Communities Program



*"Treat the earth well, it
was not given to you by
your parents, but is lent
to you by your children"*
Kenyan Proverb

Draft – Greater Shepparton Environmental Sustainability Strategy 2014 - 2030



Greater Shepparton
Environmental
Sustainability
Strategy Stakeholder
Reference Committee



Our mission

- *To improve Council's environmental sustainability performance by imbedding environmental sustainability considerations into Council's decision-making processes and operational activities.*

Our visions

1. Our municipality: *Our healthy, vibrant, and resilient natural environment can sustain the long-term prosperity of our municipality for generations to come.*
2. Our organisation: *Greater Shepparton City Council is respected and recognised by our community, stakeholders and peers for leading by example on environmental issues and achieving positive environmental outcomes from our decision-making processes and operational activities.*
3. Our community: *Our environmentally conscious and well-informed community demonstrate that they value our environment via incorporating sustainability principles into their everyday activities and by their involvement in local environmental protection and enhancement activities.*

Formation of the Greater Shepparton Environmental Sustainability Strategy Stakeholder Reference (steering) Committee

Community environmental values and behaviour survey

Literature Review

Internal staff survey



Discussion Paper - Greater Shepparton Environmental Sustainability Strategy

Community information sessions and comment period

Stakeholder Reference Committee review

Internal Council review



Draft - Greater Shepparton Environmental Sustainability Strategy

Community comment period

Stakeholder Reference Committee review

Internal Council review



Final - Greater Shepparton Environmental Sustainability Strategy

Implementation of Strategy actions

Periodic Strategy reporting

Periodic Strategy review

Carbon mitigation project

Methane flare at Cosgrove 2

- Council installed gas collecting and measuring systems at Cosgrove landfill over seven years ago. The collected methane gas was flared to produce CO₂, a greenhouse gas that is twenty times less potent than methane.
- Three years ago, Council installed infrastructure so that the gas could be burned to generate electricity that is channelled back into the grid. The power produced is enough to power 900 households.

Carbon mitigation projects

“Watts Working Better” – Streetlight upgrade project

- Project funding received from the Federal Government via CEEP funding– signed off prior to the last election!
- 9 Council partnership project - GSCC is the lead Council
- Replacement of 12, 661 mercury vapour lamps (3,840 in Shepparton)
- T5 replacements - for most Councils (Moirra LED’s)
- Total project savings:
 - 4,485 tonnes GG emissions per year
 - 85,700 tonnes GG emissions over 20 years
 - \$15,658,427 over 20 years
 - 4 year payback period

Carbon mitigation projects

Climate Smart Agricultural Adaptation Project

- Partnership project - Five GB Catchment Councils, GB CMA, GBGA
- \$200,000 funding from VASP (State Government) Program
- Key outputs:
 - Modelling reports of current and potential agricultural options for our farmers based on soil maps and projected climate change modelling scenarios.

National Tree Day





Thank you for your time today!
Any questions?



Endangered squirrel glider (photo: Keith Ward)