STEM Community Partnerships Program

Canterbury Bankstown local scenario

Water

The Canterbury Bankstown local government area is bounded three main catchment areas, with water flowing into the Cooks, Georges and Parramatta rivers. These catchments provide important habitat to many fauna and flora species in the area. Water is important in maintaining the biodiversity of this area and the community will benefit from managing this well.

Damage to the natural waterways has increased due to increasing urbanisation, particularly with the growth of high-density dwellings. Research conducted by the City of Canterbury Bankstown estimates that 95% of the contaminant load of the waterways is from stormwater runoff. This affects the health and safety of the residents, as well as impacting on local flora and fauna. Council is implementing best practice management guidelines and education for the community. Council has also implemented numerous initiatives to support sustainability of the waterways, local community members can volunteer with Bushcare, Cooks River Alliance or the Georges River Combined Councils Committee (GRCCC).

The Council is a member of the Georges Riverkeeper which is seeking to have a cleaner catchment from reducing litter, regenerating bush and being an advocate for natural resource management. Council has also partnered with Sydney Water to reduce floating litter on the Cooks River. Litter boom traps have been installed at Boat Harbour, Hurlstone Park and Fifth Ave, Campsie. The one-way gate at the opening of the collection prevents the escape of trapped debris. The trap is inspected and serviced weekly to remove the litter, booms can capture 15-18m^3 of litter per week.

Water used in domestic situations may not be effectively recycled for the environment and can further increase the damage to waterways and storm water overflow. Research and technology may provide insights to develop new processes to assist manage these problems and provide improved local biodiversity outcomes.

How your Council tackles the complexity of this issue impacts you and your community now and in the future.

Pollution Control Devices – City of Canterbury Bankstown

Your task

Your task is to use the information above and resources provided below as a start to identify a local problem and design a STEM-focussed solution.

(Question, Design, Explore, Communicate)

Resources

CSIRO research

- CSIRO Water Book https://www.csiro.au/en/Research/Environment/Water/Water-Book/About

Reports

- Georges Riverkeeper Strategic Plan 2018-2022 https://georgesriver.org.au/resources/georges-riverkeeper-strategic-plan-2018-2022
- Surface Water Quality and Monitoring Program: 2017 –2018 Annual Report www.westconnex.com.au%2Fmedia%2Fzaebdkph%2Fnew-m5-water-quality-plan-monitoring-annual-report-2017-2018.pdf&usg=AOvVaw2dNrI-CC9qyVC1WZF-75X1
- Cooks River Ecological Health Report Card 2016-2017, Cooks River Alliance http://cooksriver.org.au/wp-content/uploads/2017/05/CRA_HealthReportCard_low-res-web.pdf

Articles and other resources

- Sydney Water recycling https://www.sydneywater.com.au/sw/water-the-environment/how-we-manage-sydney-s-water/recycled-water-network/index.htm
- Pollution Control Devices – City of Canterbury Bankstown https://www.cbcity.nsw.gov.au/environment/rivers-creeks/pollution-control-devices
- Catchment Management Authorities, NSW Government https://www.environment.nsw.gov.au/4cmas/

~~G~~*Generation STEM* is managed by CSIRO and made possible by an endowment from the NSW Government to the Science and Industry Endowment Fund (SIEF).