



Ecosystem type 2: Mangrove forest

The **mangrove forest** ecosystem study site is found between the low and high tide levels (this is often called the intertidal zone), along the banks of Buffalo Creek and Lane Cove River. This ecosystem is usually flooded with salt water twice a day when the tide is high.

While this ecosystem is extraordinarily rich in nutrients it is largely a monoculture, meaning it is dominated by only one family of vegetation consisting of 95% Grey Mangroves and 5% River Mangroves.

Mangroves are a type of tree that are unique in their ability to grow in intertidal mudflat habitats that present the following challenges to plants:

- **Salt** - living cells will usually die in a saline environment.
- **Oxygen-poor soils** - the mudflat sediments are permanently soaked which makes it difficult for the trees to breathe through their roots.
- **Unsupportive soils** - the wet sediments do not hold together well and so do not offer much support for large trees.

Despite these challenges the mangrove forest is a valuable nutrient-rich ecosystem that provides crucial habitat to a great variety of estuarine and marine species.

Mangrove forests can also work as effective barriers between terrestrial and marine environments, guarding against erosion and trapping physical and chemical pollution.

The Buffalo Creek mangrove study site covers an area of approximately 8.5 hectares.

TASK:

[This fact sheet](#) will be a great help in your studies.

What are the three key functions that are provided by mangrove ecosystems?

Link: http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0020/236234/mangroves.pdf