Does a buffer have any legal status?

In Cape Town, buffers are required in terms of the City's Floodplain and River Corridor Management Policy, which states that all developments must ensure that adjacent rivers, wetlands and vleis are provided with adequate buffers.

How does one know what buffer width applies to a particular system?

Recommended buffer areas have already been set for many of the larger river systems in the city. Where they have not been determined for a particular system, a wetland or river specialist would need to be consulted.

For more information:
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Environmental Resource Management Department

Protecting Cape Town's rivers and wetlands with ecological buffers

CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD

THIS CITY WORKS FOR YOU

Rivers and wetlands in Cape Town

Among the many natural assets of Cape Town are its rivers, wetlands and large open-water vleis. Unfortunately, urban development has resulted in many of these natural systems being affected by pollution, canalisation, invasion by alien vegetation, and the loss of indigenous plants and animals that once occurred there.

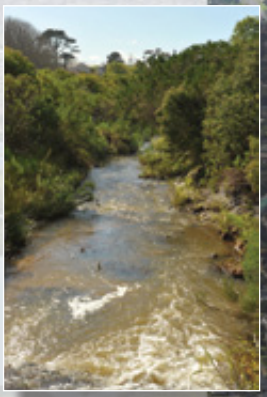
Nevertheless, many still provide important habitat to a diversity of animals and plants, some of which are now endangered due to habitat loss. They also provide useful 'ecosystem services' to urban communities, including recreational areas, floodwater attenuation, a degree of pollution reduction, sources of water, and attractive amenities that add value to properties and quality of life. Importantly, such services also offer resilience to some of the effects of climate change.

Protecting our urban freshwater ecosystems

Remaining natural and even artificially altered wetlands and rivers need to be protected from the impacts of urban life if they are to continue to provide habitats and important services for human communities. Providing them with **ecological buffers** is one of the most important ways of protecting these ecosystems.

What is an ecological buffer?

An ecological buffer area (also called a development setback area) is a vegetated strip of land adjacent to a watercourse, wetland or vlei that is required for the protection and enhancement of these ecosystems.



Buffer functions

The primary purpose of a buffer is to provide enough space between aquatic ecosystems and urban activities, infrastructure (such as roads, pylons, pipelines) or other developments to dissipate the following negative effects on the ecosystems:

- Noise and disturbance associated with human movement and vehicles
- Rapid, concentrated and frequently polluted run-off from hardened surfaces
- Spread of alien plants, such as kikuyu grass and other 'garden escapees'

Well-vegetated buffers assist with stream-bank stabilisation and protection from erosion, and also provide habitat and safe continuous corridors for animal movement.

How big should a buffer be?

In the jurisdiction of the City of Cape Town, all aquatic ecosystems are required to have a buffer. Buffer widths vary between 10m for small streams or concrete canals, up to 40m for rivers and 70m for wetlands.

The actual width of the buffer required to protect a particular wetland, vlei or river depends on the type of ecosystem, its sensitivity and ecological importance, and the kinds of impacts that are likely to affect it.

From where is the buffer measured?

The buffer is measured from the top of a river bank or the outer edge of a wetland. This edge must be determined by a specialist, using nationally accepted guidelines/methodologies.

Buffer do's and dont's

The main purpose of a buffer area is to protect the aquatic system. Any activity or development within the buffer that affects its ability to carry out this function, or that adds impact, should not be permitted.

Thus, buffers should not be hardened with paths, patios or parking areas, fertilised, planted with alien plants (including kikuyu grass) or drained.

At the same time, buffer areas can lend themselves to a range of other, compatible functions. For example, they can provide:

- areas for controlled walking of dogs;
- recreational areas for fishing, picnicking, walking or cycling
- opportunities for bird-watching and sites for environmental education;
- dry-season play areas or informal sports fields; and
- space for the improvement of stormwater run-off quality, using swales, treatment wetlands and other, similar 'sustainable urban drainage system' measures.