



The eThekweni Municipality Coastal, Stormwater and Catchment Management Department has implemented a Forecast Early Warning System (FEWS), to better manage and mitigate the effects of flood related disasters. The eThekweni municipality has begun experiencing flooding on an annual basis, with these events varying in severity from minor damage to loss of lives and infrastructure. Although these events are natural disasters, an action plan needs to be put in place to minimize the effects of such events. Changes in rainfall patterns, rising sea-levels, population growth and economic activity are driving an increase in demand for flood risk forecasting and mitigation engineering. World-wide flood disasters account for about one third of all-natural disasters. South Africa's increasing demand on cities for employment, results in large scale urbanization into flood plains and river courses. Furthermore, the capacity of aging urban drainage systems to cope with infrastructure development and changes in climatic rainfall patterns will increase the probability of extreme events.

The south African constitution states that everyone has the right to an environment that is safe and not harmful to their health. In terms of the National Disaster Management Act, prevention and mitigation is top of the list and early warnings fall into the prevention. The development of the FEWS is the first of its kind in South Africa and Africa. FEWS is a disaster management and data monitoring tool that simulates flood scenarios, environmental water quality, coastal erosion and wave behavior. Access to reliable weather forecast data allows the system to predict the effects of natural disasters ahead of time, allowing enough time for the information to be provided for emergency resource allocation so that the city is better prepared. A web-app was developed by the Coastal, Stormwater and Catchment Management Department for the public. The eThekweni Coastal Live website is an initiative to primarily communicate weather related information within eThekweni. It is built for 'mobile first' technology with the intention of having users engage more frequently. Coastal Live was launched by the Mayor in November 2020.

This project contributes to achieving the following Sustainable Development Goals:



The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the

future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

SDG 1 aims at ending poverty in all its forms everywhere; SDG 11 targets making cities and human settlements inclusive, safe, resilient and sustainable; SDG 13 aims to enable urgent action to combat climate change and its impacts and SDG 17 seeks to strengthen global partnerships to support and achieve the ambitious targets of the 2030 Agenda, bringing together national governments, the international community, civil society, the private sector and other actors.

For further information about the SDGs, please visit <https://strathub.durban.gov.za/pages/sdgs> or email Nevana.Srikissoon@durban.gov.za