



# What lies beneath South Dunedin?

Kia ora again from your city and regional councils. Despite all the challenges this year has brought we are getting a great response to our discussions about climate change and the future of South Dunedin. Thanks to everyone we have met so far. There are still plenty of groups that we have not met with yet, so please get in touch and we can make a time to come and talk with you.

As well as the talking we have also been doing a lot of scientific work to better understand the challenges that we need to respond to. Many of these relate to water, such as rainfall and flooding risk, coastal erosion and underground water.

## The pipe network

The DCC runs networks of pipes underneath South Dunedin. Some are sewers, carrying wastewater to the treatment plant in Tahuna. Others are stormwater pipes, which take rainfall out to sea and into the harbour. Climate change is expected to increase the frequency and intensity of rainstorm events, so we're doing a lot of work about how we can improve the pipe systems, reduce flood risks and think creatively about ways to deal with our changing climate.

### **Groundwater**

When it rains, water soaks into the ground and fills the cracks and little spaces between soil, sand and rock.

This is known as groundwater. South Dunedin is built on

reclaimed land that used to be a coastal wetland. This means that groundwater is already close to the surface, making it hard for water to drain away when it rains.

One of the big effects of global climate change is sea level rise. Scientists are predicting that over the coming decades as the harbour and ocean off St Clair and St Kilda rise, the groundwater level under South Dunedin is likely to rise and this could eventually mean water sitting at the surface all the time in some places. However, there are a lot of things that could be done about this and we have enough time to work out the right responses to give the area a great long-term future.

#### Live groundwater action!

You may have noticed something new in the windows of the South Dunedin Community Network rooms on King Edward Street. This new display explains groundwater using live data that the Otago Regional Council collects from four of its 27 bores around reclaimed Dunedin. At the press of a few buttons the display demonstrates how groundwater is impacted by tidal changes and shows how groundwater at these four points was impacted during the 2015 floods in South Dunedin. It also provides an estimate of what groundwater levels could look like with a 30cm sea level rise due to climate. If you haven't already, head down and take a look!

#### For more information

Visit www.dunedin.govt.nz/southdunedin or call the DCC on 03 477 4000.



