

Wildlife Corridors

Stafford Drive farm (the old flax mill) and the Seaton Valley Wildlife Corridor

The old Mapua flax swamp is needed now more than ever for coastal retreat for seabirds, flora and local wildlife taonga.

These maps from the Tasman District Council tell a story about the future of the Seaton Valley flax swamp and Seaton Stream to the coastal estuary in Māpua, a vital wildlife corridor that needs to be considered in our Future Development Strategy.



1. Present day view of water channels in old flax swamp and stream leading to the saltwater estuary



2. Current high tide mark (solid dark blue) in spring and 1% annual exceedance probability for salt-water intrusion (hatched dark blue)



3. Salt-water intrusion under 0.5M sea-level rise, mean spring high tide mark (solid blue) and 1% annual exceedance probability (hatched blue)

The left half of these maps show an historically brackish swamp. A kahikatea forest once climbed out of the swamp up the Seaton Valley. Surface water events drained from Seaton Valley into this swamp and were absorbed by spongy layers of peat, bog, sand, gravel and clay holding water-sucking plants such as harakeke, punga, ti kōuka and other native species. It was a place where native and migratory birds could nest and feed, where native orchids once thrived and where fish could spawn as they used the existing wildlife corridor from the sea into the mainland.

The flax swamp supplied a successful flax mill for many years. After that it was drained intensively for beef and sheep farming. Most recently, the swamp land and the hills to the north of it have sold to developers.

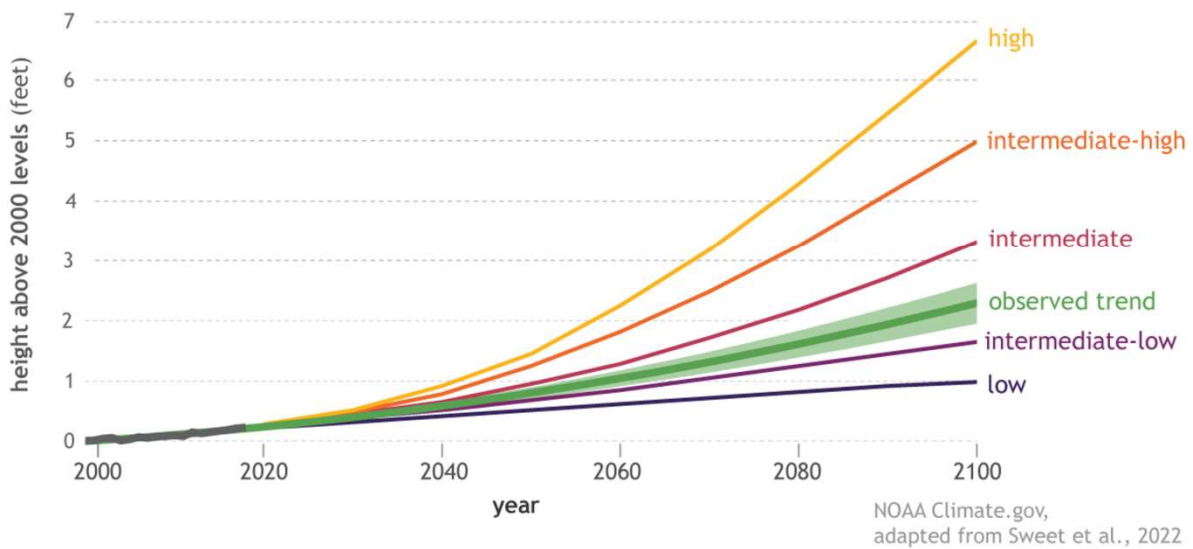
Future development plans need to consider at a minimum, the geophysical position of the land with regards to seawater intrusion and the potential for protecting the surrounding community from major flood events. The lack of elevation here means that stormwater has no place to go

no matter how sophisticated a new stormwater drain might be. This swamp will be at sea level once again in the not-so-distant future.

We know that sea level is rising (see the moderate increase of 0.5 meters in the third image above), and that displacement of stormwater would negatively affect the surrounding land and infrastructure. The Tasman District Council maps have sea-level rise scenarios for 0.5 meters, 1 meter and 1.5 meters.

Current global projections are for an average sea level rise of 0.3 meters to 2.2 meters by 2100 ([Climate Change: Global Sea Level | NOAA Climate.gov.](#))

Possible pathways for future sea level rise



Graph found on this webpage: [Climate Change: Global Sea Level | NOAA Climate.gov](#)

In 2022 we have a choice. The physics of water flow alone are enough to argue in favour of maintaining this low-lying area as a wetland, as demonstrated in the three maps above. By saving this and other valuable coastal wildlife corridors and restoring them with native plants that will suck up water and hold soil, we can provide storm and flood water protection. Saving the "Jewel" of Māpua will in turn save us.

Lou Gallagher, Wildlife Corridors Subcommittee of the Māpua Districts Community Association