



At the heart of the Department of Conservation (DOC)'s Dolomite Point Redevelopment Project is a new Experience Centre, celebrating and telling stories of the area's people, fascinating geology, and unique wildlife. Fundamental to the design was the use of leading, innovative design practices to make the building as sustainable as possible, with minimal impact on the natural environment.

Key to the resource consent was managing stormwater runoff from the new building area. Instead of installing stormwater detention tanks, DOC worked with the local community, consultants and Stormwater360 to specify a living roof to mitigate effects of stormwater at source.

LiveRoof® is a hybrid living roof system combining international technology with locally designed and manufactured media by Stormwater360. Trays are filled up to 150mm depth with proprietary LiveRoof® media, planted and grown to >95% coverage before installation on the roof connects the trays and media into a continuous system. This gave two key benefits to DOC for this project. Prevegetated trays help prevent the harsh weather on the West Coast scouring media, and the stormwater mitigation properties of the Stormwater360 LiveRoof® media have been tested at the University of Canterbury.

Any rain falling on the Experience Centre roof is absorbed by the media and plants, and evapotranspiration means up to 70% of annual rainfall can be absorbed by the LiveRoof®. For this project, this meant the runoff was managed without needing to use stormwater tanks. Stormwater360 worked with Sheppard & Rout Architects to detail the system, Kamo Marsh landscape architects and local plant specialists to select plants from herbaceous and woody ground covers that included grasses, rushes, succulents, and sedges native to the area. The DOC project team worked with the local community and Conservation Volunteers NZ to source the plants and grow the trays locally, before installing on the roof.

Stage 1 installed 2,000 LiveRoof® trays with 11,000 native plants covering 360m<sup>2</sup> in December 2023, and when it's complete the living roof will cover 650m<sup>2</sup>. Inspections around two months after installation show the plants are growing and spreading well, herbaceous ground covers extend between trays and very little bare soil was present. Plants are a natural range of colours including yellow-green to olive brown – the roof is well established and healthy.

The new Punakaiki visitor Experience and Exhibition Centre's LiveRoof® is a stunning native green roof that showcases how bold design choices and thoughtful collaboration throughout the project can deliver exceptional outcomes.

