



CASE STUDY



Figure A Northern Beaches, NSW. Photo Credit: Toolijooa Environmental Restoration

PROJECT

Contractor: [Toolijooa Environmental Restoration](#)

Client: [Northern Beaches Council](#)

SITE LOCATION

Curl Curl Beach, Northern Beaches, NSW

The site at Curl Curl Beach is exposed to severe coastal conditions, including strong winds, sand movement, extreme temperatures and high humidity. It's rated as CX according to AS 4312:2019 Atmospheric Zones in Australia.

PROJECT SCOPE

The Northern Beaches Council tasked Toolijooa Environmental Restoration with designing and installing a 450 metre fence at Curl Curl Beach that would:

- Last for a minimum of 15 years without replacement
- Require minimal maintenance within the first 5 years
- Mitigate sand movements within the dune systems
- Restrict access to dogs and people

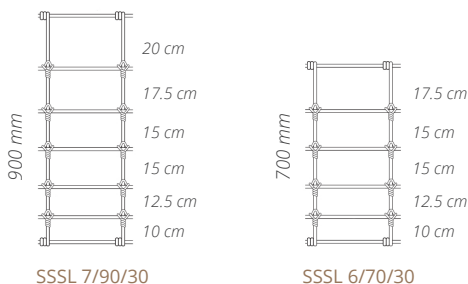
PRODUCT

[Rural & Coastal Fencing](#)

[Stainless Steel 316 Strong Lock](#)

Product Codes: SSSL 6/70/30 and SSSL 7/90/30

Number of Wire / Fence Height / Vertical Wire Spacing



THE SSWM CHALLENGE

Coastal environments in Australia pose significant challenges for infrastructure, requiring materials that can withstand constant exposure to corrosive, abrasive and humid conditions. Stainless Steel emerged as the solution of choice, ensuring durability and compliance with AS 4312 Atmospheric Zones in Australia. This avoids cases like the photo below.



Figure B Galvanised fencing materials cannot withstand Australia's harsh coastal environments.

The Northern Beaches Council have adopted SSWM Strong Lock Fencing in Stainless Steel grade 316 and it is now a specified product for their coastal needs and is being installed along the Northern Beaches, see main photo.

"Stainless steel Strong Lock has been vital in our dune restoration works. Today, we aim to build structures that will outlast us and endure into the future, minimising work for future generations... something galvanised wire cannot guarantee in windy, sandy and high salt environments"

Adam Burrowes
Special Projects Officer, Northern Beaches Council



SAME DAY DESPATCH
when your order
is received by 9am





Strong Lock installed at Northern Beaches, NSW with magnified view of the superior lock joint

ROOF SAFETY MESH, MADE TO LAST

Stainless Steel used in Coastal Fencing meets Local Council requirements and complies with Asset Management International Standards (ISO 55000). It plays a critical role in protecting and rehabilitating foreshores, reducing replacement and maintenance costs, which translates to savings for Councils.

Foreshores are not only crucial for environmental conservation but also serve as popular destinations for tourists, contributing significantly to local communities. Therefore, coastal fencing must be strong, stable, safe, secure and sustainable to effectively protect these sensitive areas.

THE CASE STUDY

SSWM supplied stainless steel coastal fencing for Toolijooa Environmental Restoration's project, now considered best practice in ecological management and restoration works. SSWM is proud to have contributed to maintaining and re-establishing a sustainable and diverse natural ecosystem.

DEGRADATION RATE AND ASSET LIFE BY COATING/MATERIAL IN EXTREME CORROSION ZONES (CX)*

Coating / Material	Typical service life**	Average degradation rate (10 ⁻⁶ M/Year)#	When maintenance is required
316 Stainless steel	720 years	0.025	Minimal maintenance due to washing from rain water
Mild steel with hot dipped galvanised^	2 - 6 years	6	From 4 years

Reference: Whole of Life Cost Comparison and Cost Benefit Analysis For Steel Structures Constructed in the Foreshore zone, Griffith University Qld 2009.

* Corrosivity zones in line with ISO9223

**Table 16.2 Corrosion Protection Methods

Table 16.1 Average Degradation Rates

^ 575 g/m2 in line with requirements of AS 4534 Zinc and zinc/aluminium-alloy coating on steel wire

WHY STAINLESS STEEL PVC COATED ROOF SAFETY MESH IS THE SOLUTION & BEST PRACTICE?

Stainless steel is the preferred choice for coastal fencing due to its superior tensile strength, corrosion resistance, and long-lasting properties. It provides a safe, environmentally sustainable option for coastal environments. Additionally, stainless steel is 100% recyclable, further underlining its value in protecting valuable coastal areas.

BENEFITS OF STAINLESS STEEL PVC COATED ROOF SAFETY MESH

- Longer asset life compared to surface-treated galvanized products
- Low maintenance requirements, reducing inspection frequency and total costs compared to galvanized products
- Provides a safe product without causing physical hazards to people or animals
- Offers lasting protection for the ecosystem

BENEFITS FOR ASSET OWNERS

- Informed asset investment decisions
- Improved financial performance
- Better risk management for the organisation
- Enhanced services and outputs
- Demonstrates social responsibility

ABOUT STAINLESS STEEL WIRE & MESH

SSWM is Australia's largest stockist of stainless steel wire and mesh and a major innovator in converting many galvanized wire applications to stainless steel. Our products are manufactured under ISO 9001 Quality Standards and tested to Australian and International standards.

For further information on the benefits of stainless steel, please refer to ASSDA's table: "Comparison of stainless steel and galvanized steel in general applications."

WE ONLY STOCK STAINLESS STEEL AS IT LASTS

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