

Habitat Development: Riparian Habitat

BALANCED ENVIRONMENTAL

18th Street Foreshore Enhancement

Opportunities

• Recreate a natural riparian fringe habitat, connecting the Seawalk and the shoreline.

• To improve the local biodiversity by reintroducing native plants and creating habitat.

2006





Salt marshes are an important coastal feature, acting as a buffer between the shore and the land, and providing habitat for many plants, birds and insects. Small, isolated patches of dune grass on the upper shore could be improved by increasing the available space for dune grass and other species to colonise.

Achievements

• Expansion of existing dune grass patches by increasing the available habitat.

• Creation of elevated riparian habitat bench, planted with various native species.

2011





Habitat benches were created to provide space for existing dune grass patches to expand. In 2011 a riparian bench was created between 18th Street and the viewpoint, and planted with native species including western dock, beach pea and sea lupine. Riparian plants create a buffer between the land and sea, stabilize the upper shore, provide habitat for many species and contribute biological material to the shoreline.



Public Amenity: Public Access 18th Street Foreshore Enhancement

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Opportunities

- Re-connect the West Vancouver Seawalk with the shoreline at 18th Street.
- Improve public access to the shoreline and encourage engagement with the local environment.

2006





Replacing the existing hard-faced sea wall with softer shoreline protection measures will improve the physical and aesthetic accessibility of the shoreline to the public. By using natural coastal processes to trap sediments on the upper shore the gap between the seawalk and beach will be reduced, reconnecting the Seawalk with the foreshore.

Achievements

- Re-connected the Seawalk to the shore with a natural sloping shoreline and riparian habitat.
- Increased access to the beach and natural habitats for engagement with the environment.

2011





Large boulders and imported materials were used to extend the existing riparian fringe habitat. The habitat benc elevated the beac profile, creating a gradual slope to the upper shore, filling the gap between the beach and the Seawalk. By making the shoreline more accessible and creating valuable riparian habitat, opportunities are created for the public to engage with the environment.



west vancouver Economic Benefits: Beach Stabilization

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18th Street Foreshore Enhancement

Opportunities

- To reduce beach erosion and the costs of ongoing infrastructure and habitat repair.
- To prevent further erosion and the future need for artificial beach nourishment

2006





A low-profile, cobble beach with a hard-faced concrete sea wall offers little resistence to beach erosion. Waves hit the sea wall full force and are reflected instead of breaking. As they travel back to the ocean they carry sediment away from beach to deeper waters. Soft shoreline protection measures trap fine sediments on the beach while providing wave protection for the seawall.

Achievements

- Use of boulders to guide and trap sediments from the creek on the beach.
- Reduction of erosion and restoration of a self-sustaining and naturally protective shoreline.

2011





Wave trips, tombolas and riparian vegetation are used to create a self-sustaining shoreline. Wave trips along the lower shore break waves before they reach the upper shore, disrupting wave energy. Tombolas created along the beach guide and trap sediments that are carried by waves and currents, and the complex root systems of riparian plants help stabilize the upper shore.