The development of the contemporary waterfront is an extremely successful and lucrative model of urban growth however the development process often elides serious environmental problems such as the discharge of highly contaminated stormwater and sea level rise. Is it possible to develop an urban planning methodology that makes a serious attempt at resolving and remediating environmental problems while preserving the expected real estate returns of a typical waterfront development? This paper explores the remediation of contaminated stormwater and a redefined topography as a generator for a new waterfront planning methodology.
The Wynyard Quarter

The Wynyard Quarter is situated on the western side of the Auckland CBD between the Westhaven marina and Viaduct harbour. This western zone has been undergoing a slow redevelopment from an industrial wharf and tank farm to a new consumerist waterfront over the last 20 years. The Wynyard Quarter started life as reclamation in the 1930s; the site was used for warehousing, the fishing industry and most importantly as an industrial fuel store.
The Wynyard Quarter is approx. 38.8 ha. The development site is broken into three zones; the Point Precinct at the northern end of the site is mainly planned as residential development. The middle zone, the Jellicoe Precinct, has a more complex social and building programme, which relates to its role as part of a structural urban axis linking the WQ to the CBD. The Central Precinct is the largest zone from Jellicoe Street to Fanshawe Street, a third of this site is owned by another party, Viaduct Holding Group. This zone is devoted to mostly residential and commercial use with small percentage of retail.
4.5.1 Building Height

The proposed maximum permitted building heights for the Wynyard Quarter will achieve an appropriate scale in relation to the waterfront context and the proposed street and public space networks.

The height plan has been developed in order to:

- Avoid monotonous building height;
- Establish appropriate waterfront edge conditions;
- Create an appropriate waterfront scale and grain of development;
- Reinforce the Central, Jellicoe, and Point Precincts;
- Reinforce the urban structure and legibility of the Wynyard Quarter;
- Encourage quality built form;
- Preserve sight lines between the Wynyard Quarter and adjacent areas.

4.5.2 Floor Area Ratio (FAR)

The proposed maximum permitted FAR for the development sites varies in order to support the creation of precincts within the Wynyard Quarter and to encourage diversity in building form and use. The site intensity rule limits the building bulk and gross total floor area achievable on a site and will function as the prime control of the scale and intensity of development.

Different site intensity ratios apply to land within the Wynyard Quarter with the intention of working in conjunction with the maximum permitted height control to enable development that will achieve sustainable built form.

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**fig. 44** Indicative Wynyard Quarter Height and FAR Plan

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Maximum Height
- 52m
- 31m
- 27m
- 25m
- 18.5m
- 18m
- 15m
- 12m
- 10m

Note: Height in metres above mean street level.

Wynyard Quarter - Urban Design Framework  June 2007
AUCKLAND WATERFRONT WINS INTERNATIONAL AWARD

Wynyard Quarter, the newest part of Auckland’s waterfront has been honoured with a prestigious international award in the United States.

Council organisation Waterfront Auckland has won the top award at the US-based “Excellence on the Waterfront” awards for the transformation of Jellicoe Street, North Wharf and Silo Park in Wynyard Quarter from a working waterfront to a mixed-used area combining traditional fishing and marine uses with new public spaces and facilities.

The award was given at an Award ceremony at the 30th annual Waterfront Centre Conference in Washington DC on Saturday – see [http://www.waterfrontcenter.org/](http://www.waterfrontcenter.org/) for more details.

The jury noted: “The harbour in Auckland is the site of container shipping, ferry services and commercial fishing. In the past these activities were conducted away from the public, despite their inherent attraction, but they are now part of the public realm in Auckland and are integrated as attractions. For instance, there are crane seats from which to watch the waterfront’s industry.”

The characteristics of the development that were particularly praised by the judges were the “retention of fishing and industry, revealing artifacts and interpretation of the site’s archeology of patterns and materials”.

Waterfront Auckland Chief Executive John Dalzell says it’s a huge honour especially considering we were up against some stunning waterfronts in Europe, Asia and North America.

“As custodian of Auckland’s most treasured resource it is a privilege and exciting for the team to be recognised in this way. Considerable planning and thought has gone into the design of the first stage of the revitalisation of Wynyard Quarter and it’s an indication of what can be achieved in our lifetime if we are committed to be bold and are prepared to strive for transformational change that can underpin our future sustainability and prosperity”.

Mr. Dalzell says the award is a tribute to the collective efforts of all the team especially the designers and construction workers who transformed the vision into reality.

Perry Leithlean from Taylor Cullity and Leithlean (Melbourne) who was a key part of the design collaboration with Wright and Associates (Wellington), says it was pleasure to
Environmental Issues: Stormwater Contamination

The discharge of contaminated stormwater is a major issue for the Wynyard Quarter. While small-scale stormwater remediation wetlands have been installed, these measures only address the local effects of the new urban configuration. The stormwater discharge from the larger Freemans Bay catchment is concentrated in a 4m. by 4m. pipe with a single discharge point under the North Wharf. After heavy downpours there is highly visible harbour contamination that leads to toxic sedimentation around the wharf area.
Environmental Issues: Sea Level Rise

The discharge points for the local stormwater collection is approximately one metre above the mean high water mark. The estimated sea level rise of one metre coupled with the raised contour at the edge at the Wynyard Quarter has the potential to engender intensive and repeated flooding of the Wynyard Quarter.
Saltwater and Brackish Edge Plant Species

- Cabbage tree
- Pohuehue
- Manuka
- Saltmarsh ribbonwood
- Sea rush
- Jointed wirerush
- Marsh clubrush
- Flax

High tide level
Table 3 Species for Back wetland or spring planting unit

The 'amount' of species planted may vary from unit to unit to diversify the planting WETLAND PLANT SPECIES.

- Auckland Regional Council TP148 Riparian Zone Management Planting Guide
Wetland Edge Plant Species

- Cabbage tree
- Mahoe
- Karaka
- Toetoe
- Kahikatea
- Putaputaweta
- Ruatahi
- Small swamp sedge
- Giant umbrella sedge
- Purei

*Conditions:*

- Flat, well-drained
- Organic soils
- Mixed conditions

*Species:*

- Meleticus
- Scheflera
- Fuchsia
- Cortaderia corymbosa
- Akeake

*Useful notes:*

- Helps prevent bank erosion
- Use for flood protection