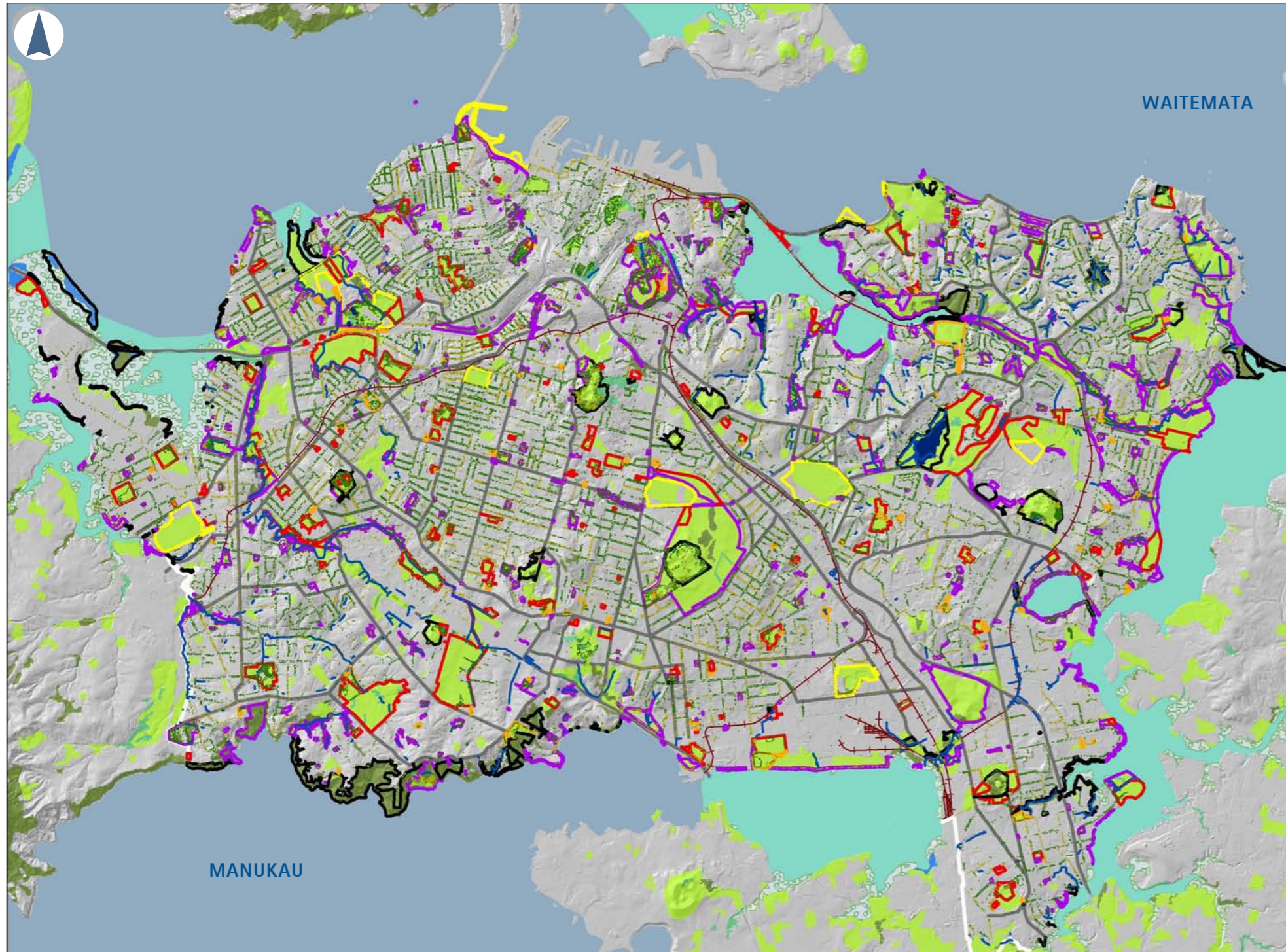


Much of the Isthmus' original ecology has been lost through its urbanisation. This map illustrates the opportunities to create integrated ecological linkages and enhance the biodiversity of Auckland's contemporary urban environment.

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**Legend**

- |                              |   |                         |                                    |
|------------------------------|---|-------------------------|------------------------------------|
| <b>Land Cover Database 2</b> | <b>Isthmus District Plan Open Space</b> | ● Street trees (exotic) | ▬ ACC boundary                     |
| Urban parkland               | Conservation: 19.2%                     | ● Street trees (native) | ▬ Existing highway                 |
| Indigenous forest            | Informal recreation: 39.5%              | ▬ Surface water         | ▬ SH20 proposed extension          |
| Mixed exotic forest          | Organised recreation: 27.7%             | ▬ Wetlands              | ▬ Rail lines (opened in 1870s-80s) |
| Estuarine open water         | Community: 3.6%                         |                         |                                    |
| Herbaceous saline vegetation | Leisure facilities: 10.0%               |                         |                                    |
| Mangrove                     |   |                         |                                    |

**HERITAGE THEME: Linkages – Restoring our Natural Connections**  
Supporting the Quality Natural Environment

Date Drawn: 06.10.08      Scale: 1:80,000 @ A3      File Path: A08188\_001\_Heritage\_GISmapping.indd



<b>LANDFORM FEATURES</b>	<p><b>Existing Environment:</b></p> <p>Although viewed as discrete landform features, the Isthmus volcanic cones and crater basins collectively form a dominant element within the landscape, linked by a common underlying geology that is unique to Auckland. Maungakiekie (One Tree Hill), Maungawhau (Mt Eden) and Pukekawa (Auckland Domain), also provide the city's largest areas of public open space and have strong cultural heritage associations. Urbanisation and development have also led to the quarrying of several volcanic features (most notably of Maungarei (Mt Wellington) and Te Tatu (Three Kings), with resulting losses in indigenous habitat and land cover.</p> <p>Other interior landform features that characterise the Isthmus include the prominent east-west ridgelines extending behind the city from Westmere through to St. Helliers and from Hillsborough through to Avondale.</p> <p><b>Opportunity:</b> to restore and enhance legibility and access to the city's volcanic heritage through ecologically and culturally appropriate plantings.</p>
<b>NATURAL DRAINAGE SYSTEMS</b>	<p><b>Existing Environment:</b></p> <p>The Isthmus' few remaining open stream systems and surviving indigenous wetlands are important natural habitat features. The city's main streams have small catchments and flow only short distances from elevated hillsides into the Waitemata and Manukau harbours. Isolated wetlands are more commonly associated with ground water aquifers surfacing within the volcanic interior and previously occupied the volcanic craters - although few of these have survived. Many original watercourses have been either wholly or partially piped underground as a result of urban development, whilst wetlands have also been made scarce by artificial drainage. The vegetation associations of these habitats are also scarce, with little original riparian or wetland forest remaining.</p> <p><b>Opportunity:</b> to restore historic streams and wetland habitats as important natural corridors within the Isthmus landscape, including through stream 'daylighting'.</p>
<b>COASTAL PERIMETER</b>	<p><b>Existing Environment:</b></p> <p>Auckland's coastline is a strongly unifying feature of the city. No part of the Isthmus is more than 5km from the shoreline of either the Waitemata or Manukau Harbours. The shoreline includes a diversity of habitats ranging from estuarine mudflats, sandy beaches and sheer sandstone cliffs. The Manukau Harbour is internationally significant as a habitat for shore birds, whilst the Motumanawa - Pollen Island Marine Reserve is also nationally significant as a coastal wildlife refuge.</p> <p>Sections of coastline have been modified, including through excavation, reclamation, with loss of natural coastal features and indigenous habitats. The remnant coastal forest in Blockhouse Bay provides a key resource in terms of habitat values and public open space.</p> <p><b>Opportunity:</b> to enhance ecological habitat biodiversity and extended public recreation experience along the city's coastline. Coastal restoration also assists in the control of pollution and erosion inputs from the land.</p>
<b>OPEN SPACE NETWORKS</b>	<p><b>Existing Environment:</b></p> <p>The current distribution of public open space within the Auckland Isthmus has a focus on obvious volcanic features as well as providing access to the coast in discrete locations. The connections and linkages between parks are often poor, with many isolated 'pocket parks' occurring across the city. The ecological potential of smaller open space areas is limited by fragmentation. The combined area of total open space is much greater than the extent of protected ecological habitats, with the majority of public open space currently in either pasture or open parkland.</p> <p><b>Opportunity:</b> to review open spaces as potential ecological extensions or 'stepping stones' to key ecological sites through appropriate restoration planting and/or habitat creation whilst increasing the diversity of public recreation experience.</p>
<b>STREET TREE GRIDS</b>	<p><b>Existing Environment:</b></p> <p>The Isthmus has extensive historic networks of urban street trees that have been augmented within certain areas over time. Both native and exotic street trees provide a valuable resource in terms of the City's ecology and environment, by supporting birdlife and assisting with reducing air pollution. Street trees also provide 'identity' to neighbourhoods. A number of historically planted exotic street trees have since been identified as regional pest plants by the Auckland Regional Council. The value of exotic trees in contributing to diversity and cultural heritage should be recognised, however, it is important that pest plants are not used in future street plantings.</p> <p><b>Opportunity:</b> to match palettes of street tree species to specific geographical and ecological zones in order to maximise the ecological potential of these networks. A greater sense of place will also be fostered through strategic planting based on both ecological and cultural heritage values.</p>
<b>TRANSPORT CORRIDORS</b>	<p><b>Existing Environment:</b></p> <p>The city's linear infrastructure corridors (including road and rail routes) have a variable vegetation cover and function in terms of their ecological potential. Many such corridors are weed infested wastelands, although more recent infrastructure projects include substantial planting.</p> <p><b>Opportunity:</b> for strategic planning and maintenance of existing and future transport connections to provide corridors of vegetation through and beyond the city, that may also serve as habitat refuges for native wildlife.</p>