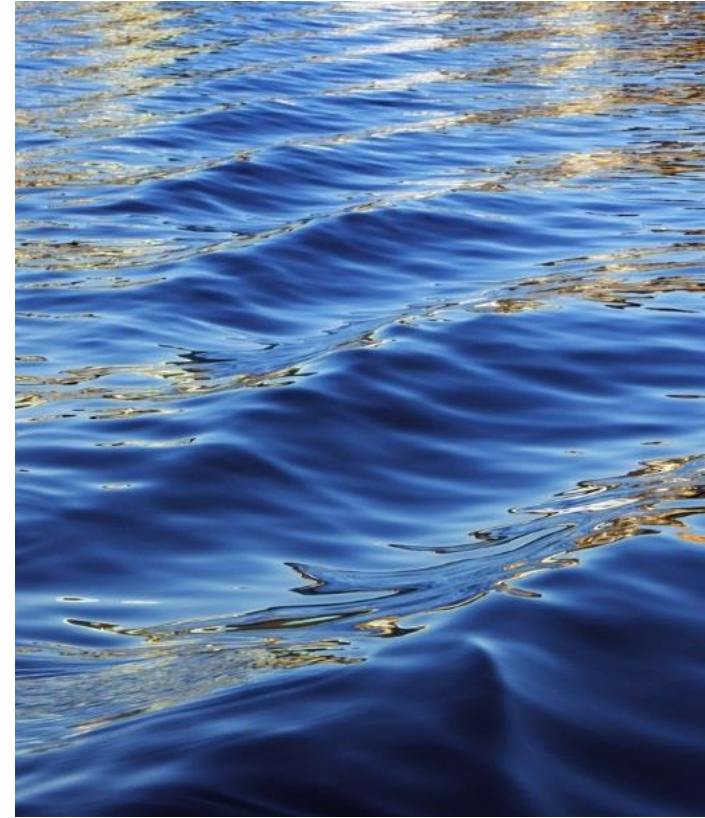




Habitat Enhancement

Ashleigh Matthews – May 2017



Outputs of the Internship

- A broad understanding of a range of issues impacting on the Styx Catchment
- A literature review and documentation of research findings
- A series of concept and construction plans detailing habitat features
- A series of constructed habitat features

CCC 6 VALUES- *Ecology*



- More overhanging vegetation and shade trees
- Islands or channels between nesting birds and the 'mainland'
- Vegetation composition/ structure and multi layered canopy to reduce human disturbance
- Diverse habitats through implementation and alterations (logs, perching trees, floating rafts, islands, nesting boxes)
- Variations of water habitat (shallow and open areas)



CCC 6 VALUES- *Landscape*



- Need for a structural vegetation barrier between human and nesting bird
 - Control of urban threats/ disturbances
- Diverse water environments
- Appropriate activities and durations outside of key breeding periods
 - Enhancement of the waterways, protection of the river terraces and natural contours



CCC 6 VALUES- *Recreation*



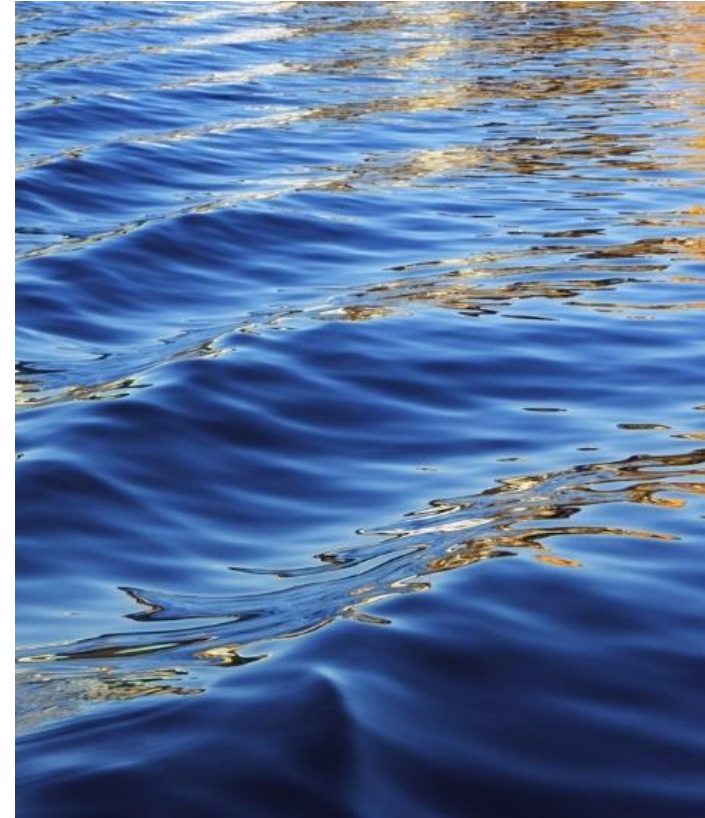
- Preventing or limiting access to core habitat or sensitive areas
- Increasing access to water to allow environmental education
- Educational services/ facilities
- Confine activity to a small area
- Activities to occur outside of key migration or breeding periods





Vision One

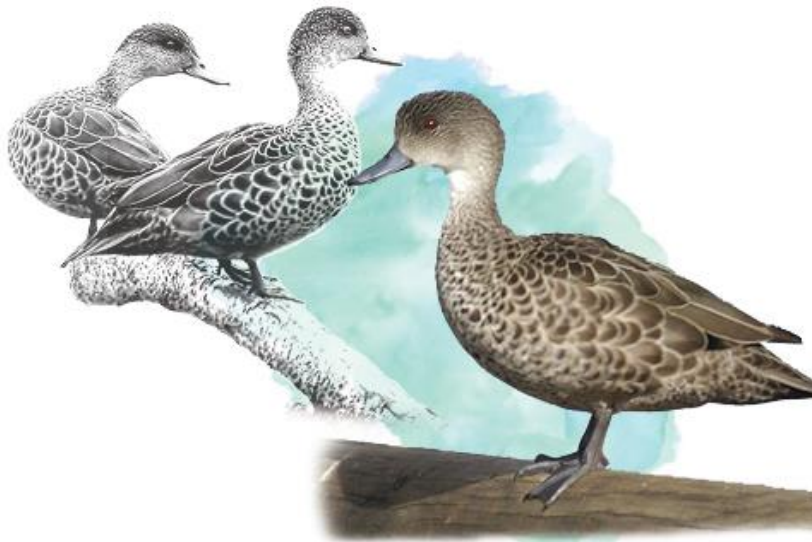
'To achieve a 'Viable Spring Fed River Eco-system'



“... we should manage for a scenario where moderate populations of many bird species occur on the river simultaneously but utilise a wide variety of niches. Competition between species should then be minimised, but links and feedbacks in the river ecosystem multiplied and strengthened.” *Crossland, 2000*

Species Diversity

Species Diversity



GREY TEAL
Anas gracilis



LITTLE PIED CORMORANT
Phalacrocorax melanoleucos

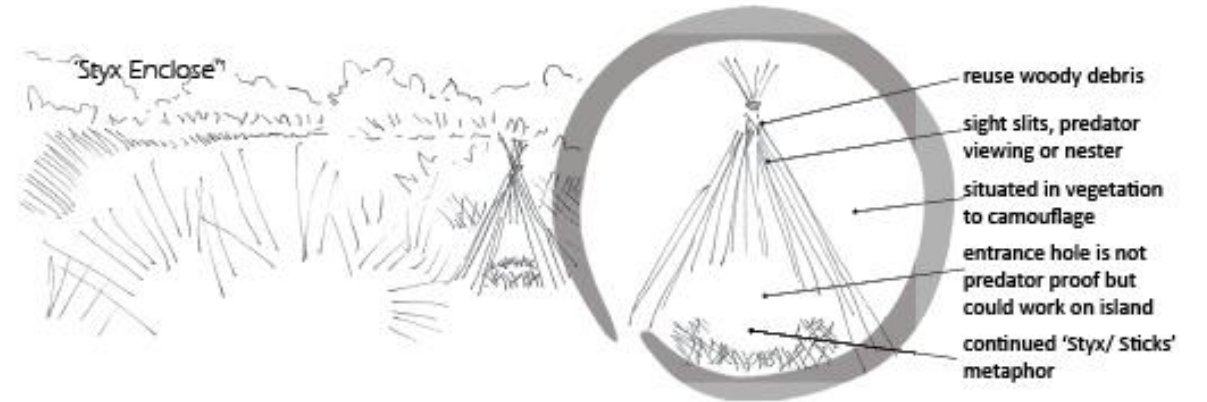
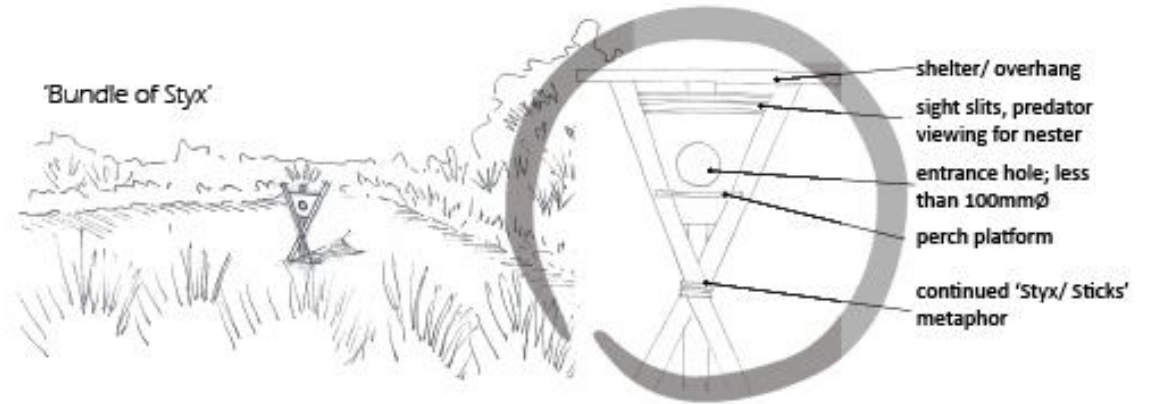


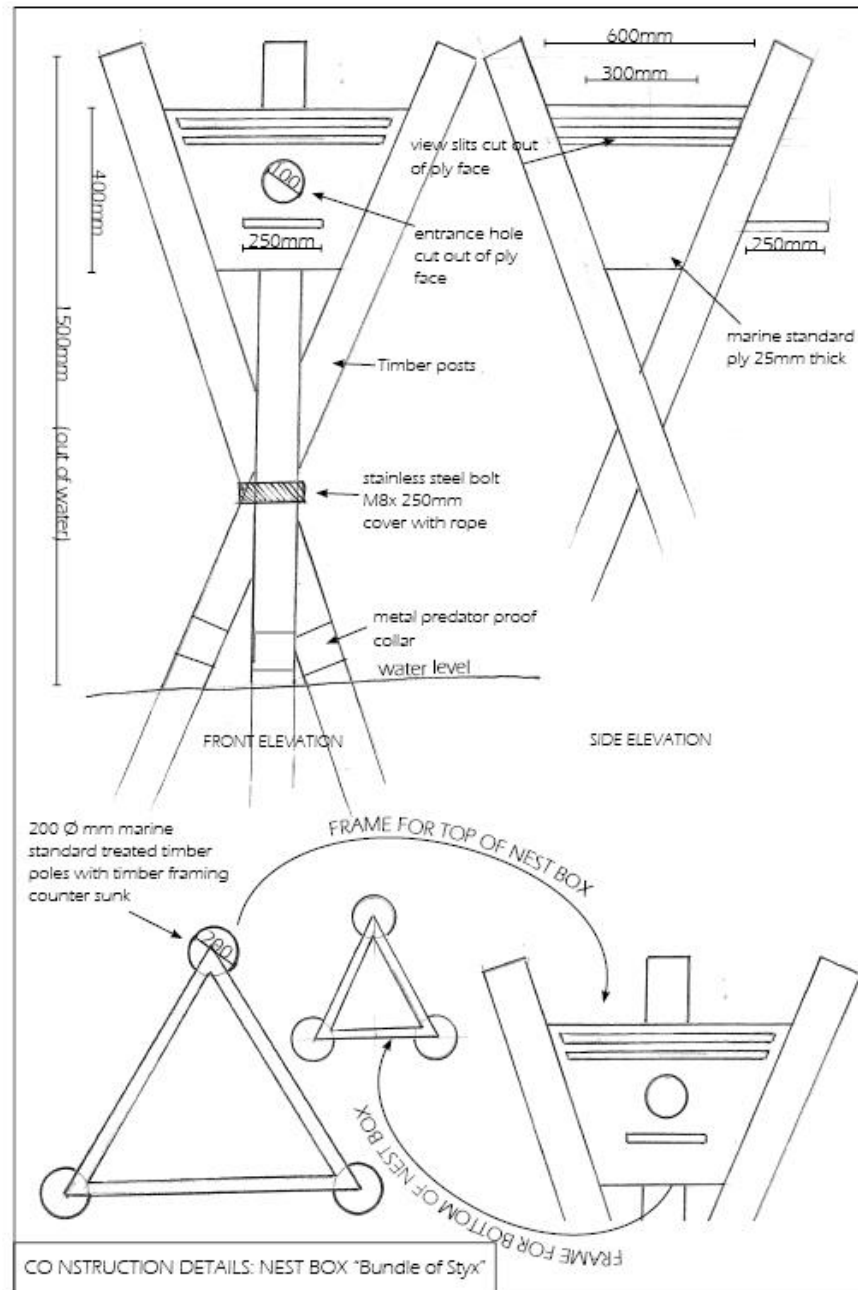
AUSTRALASIAN BITTERN
Botaurus poiciloptilus

“The best way to encourage avian diversity in the Styx River Catchment is through riparian enhancement; habitat diversification, **development of ponding areas along the river**; maintenance of high water quality; adopting flexible bank management regimes that are compatible **with the seasonal habitat requirements of birdlife**; hinterland wetland restoration/ creation; and **minimisation of disturbance and predation pressure**”
Crossland, 2000

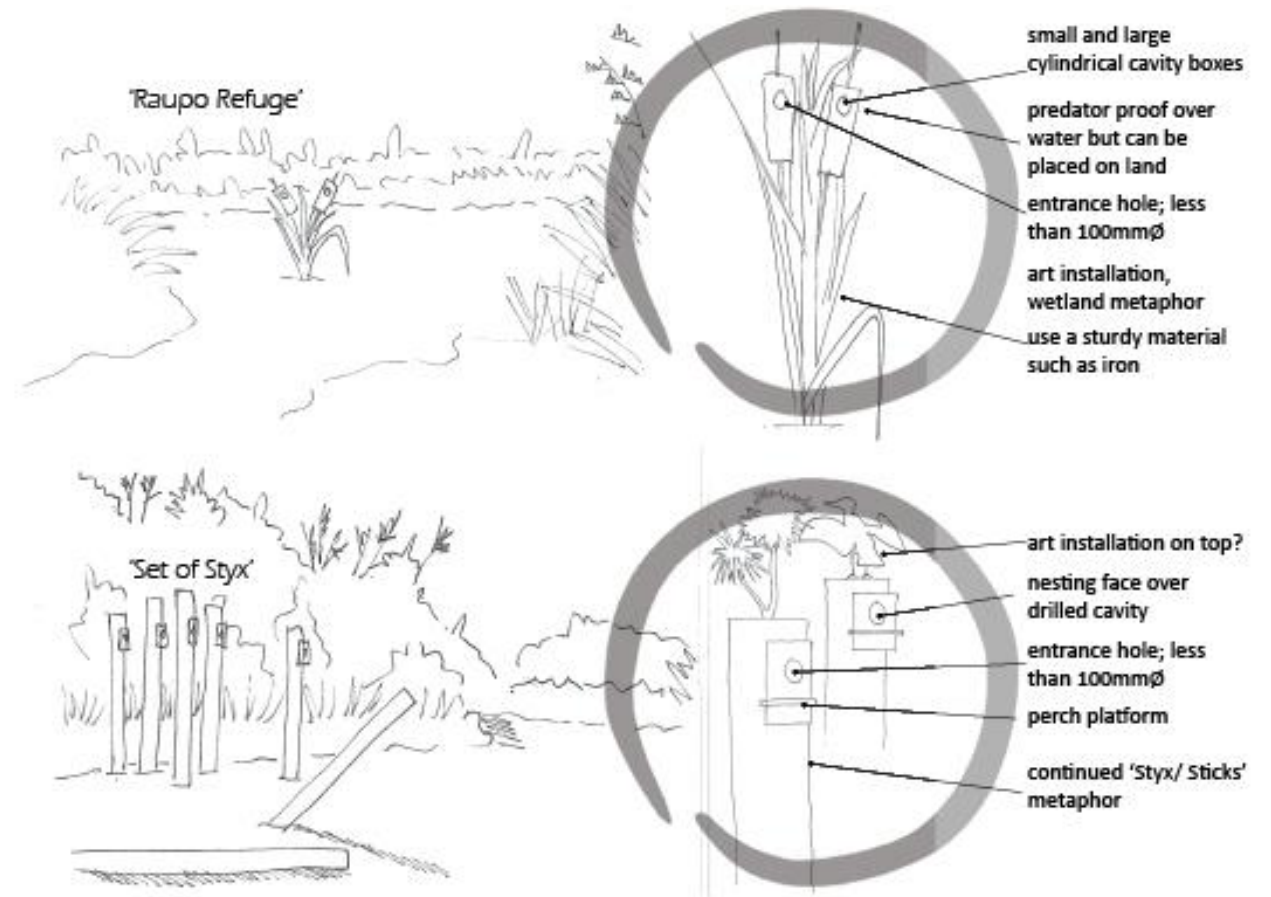
Habitat Features

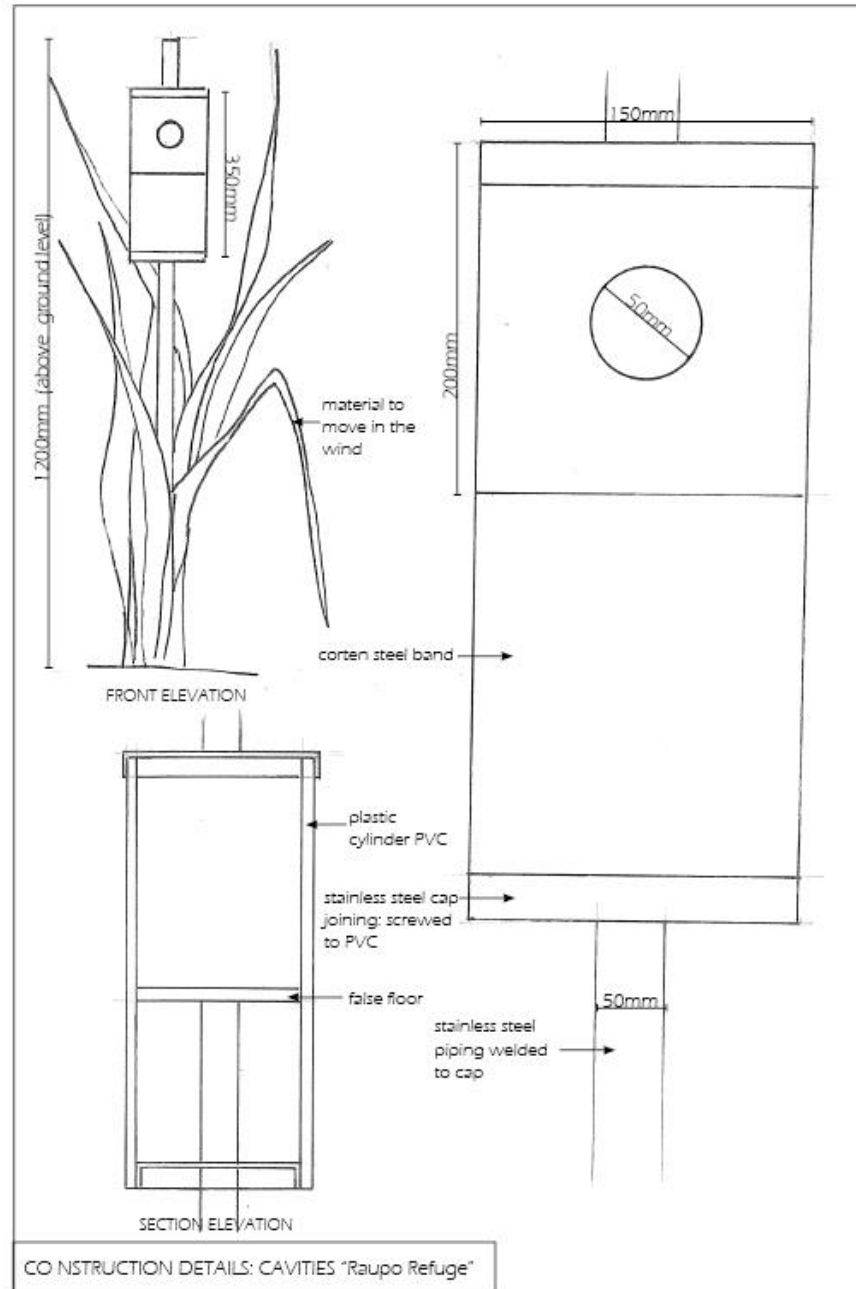
Nest Boxes



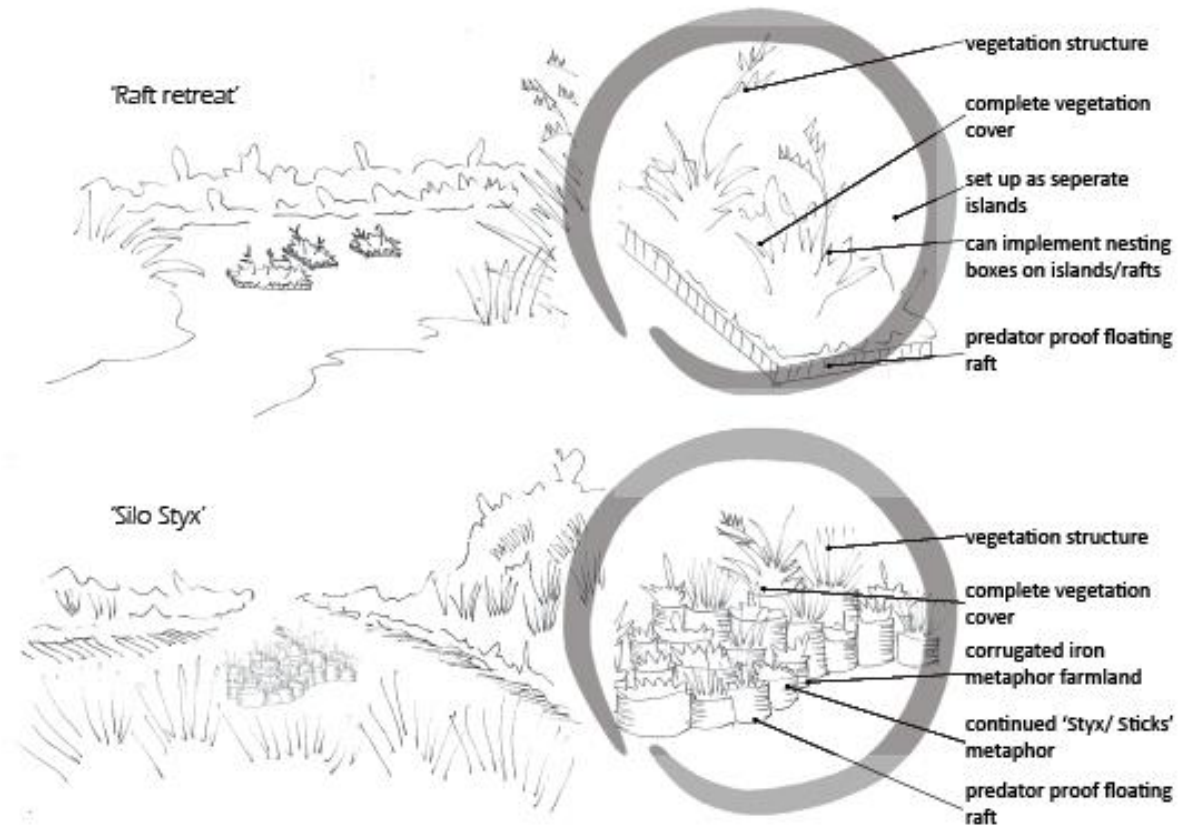


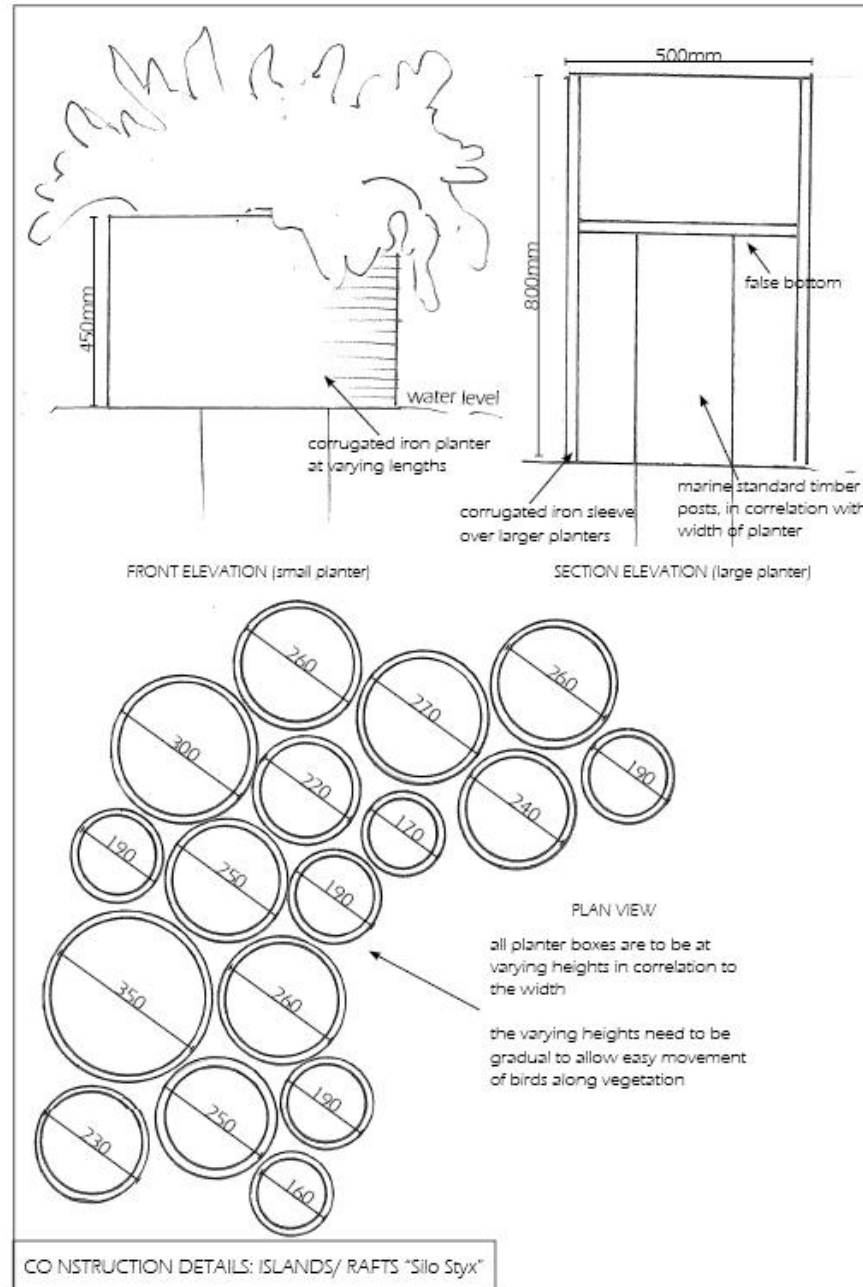
Constructed Cavities



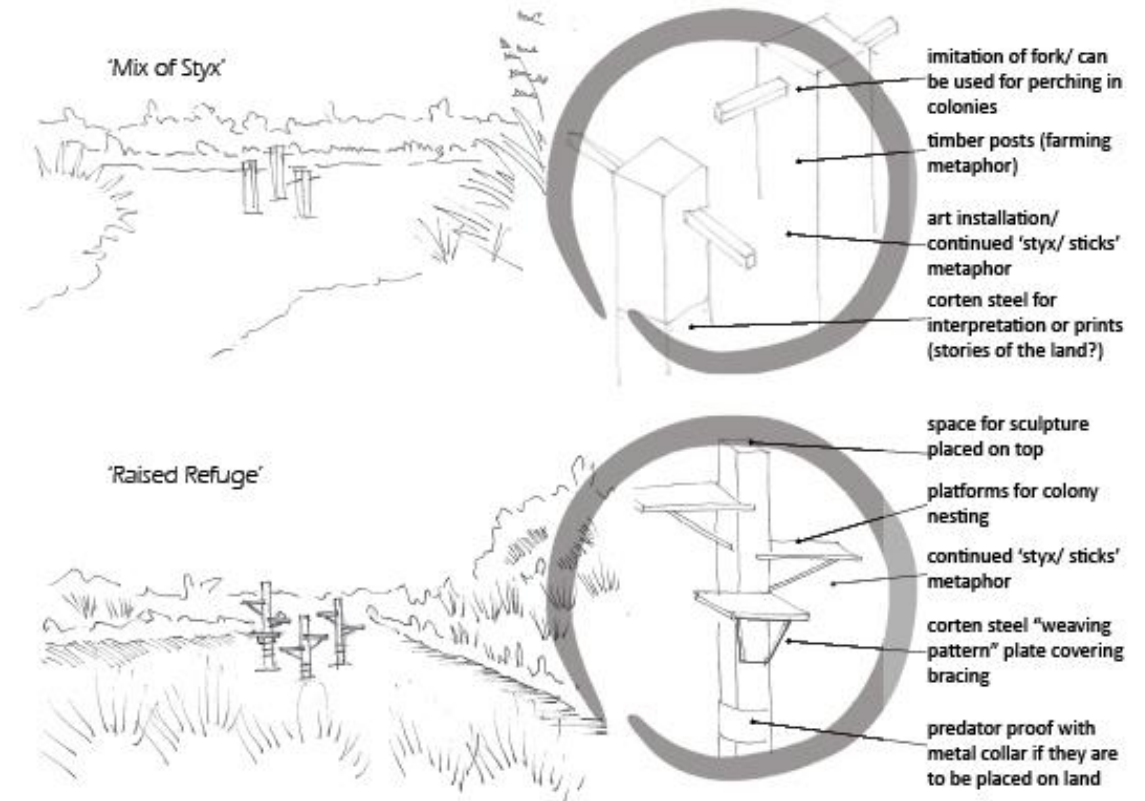


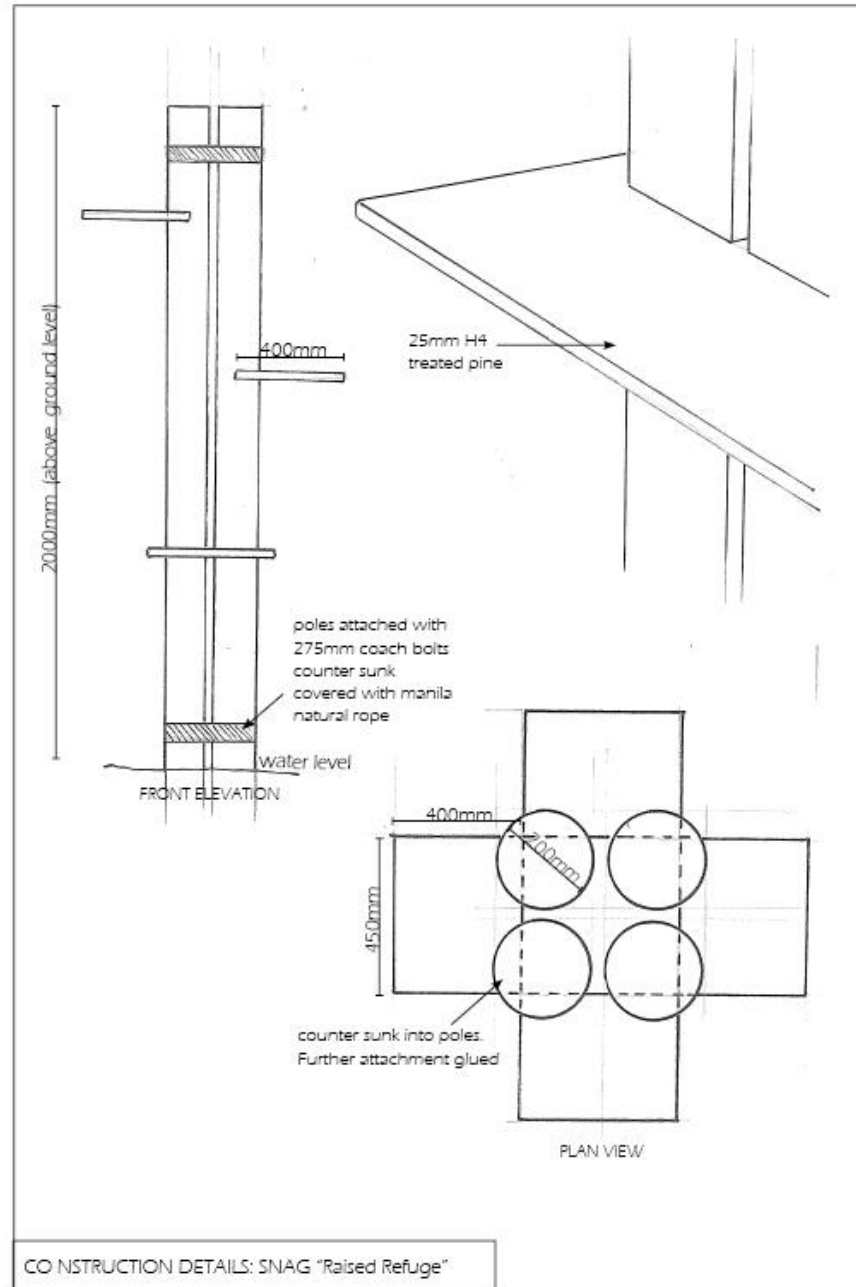
Floating Islands/ Rafts





Snags/ Flood Trees and Nesting Platforms

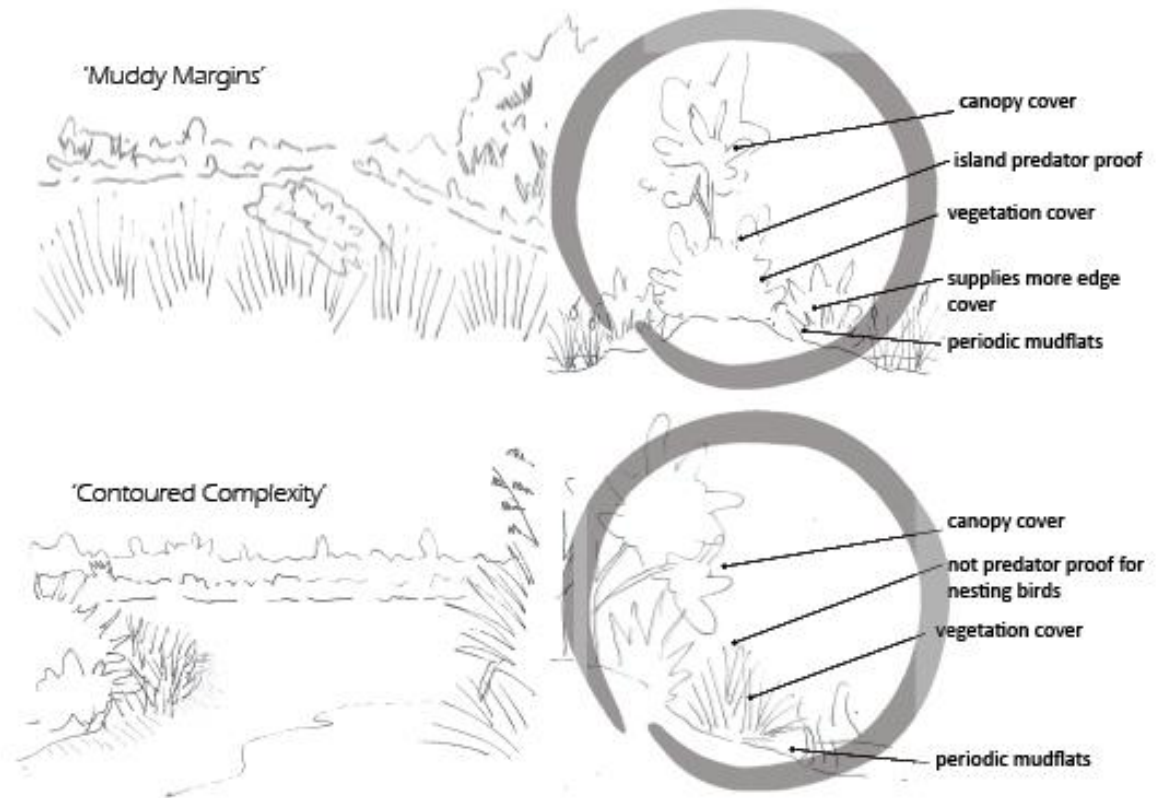




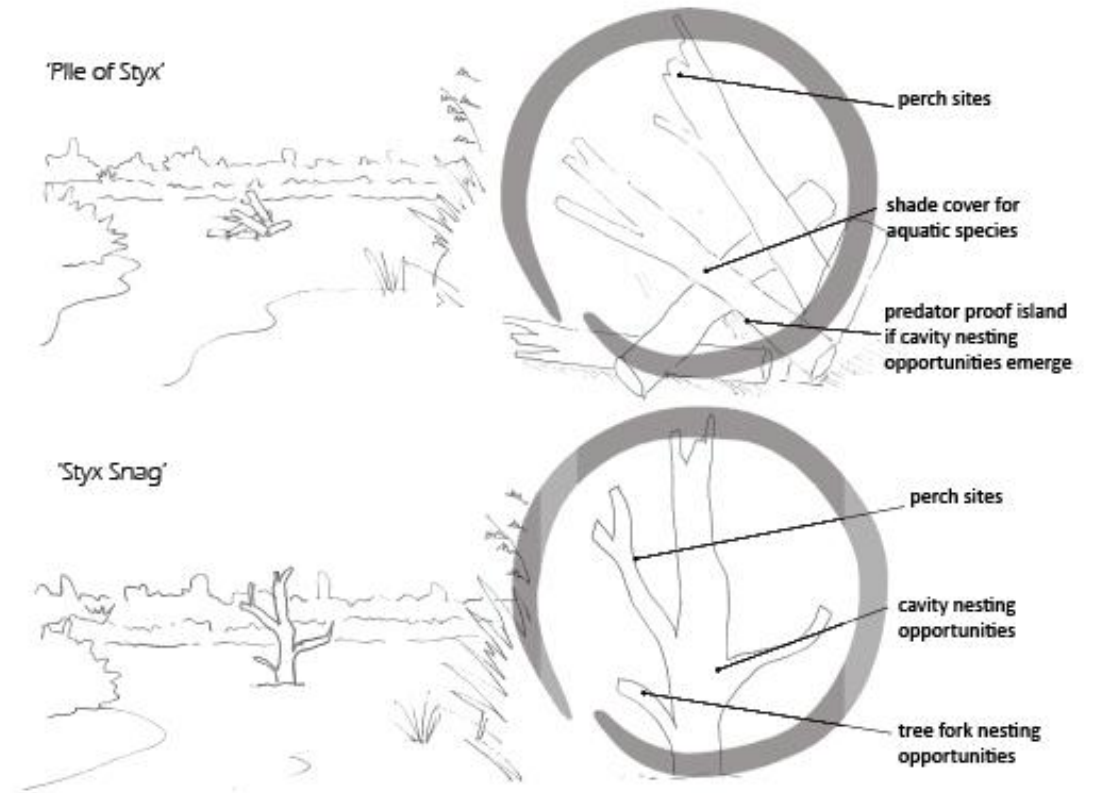
“The best way to encourage avian diversity in the Styx River Catchment is through **riparian enhancement**; **habitat diversification**, development of ponding areas along the river; maintenance of high water quality; adopting flexible bank management regimes that are compatible with the seasonal habitat requirements of birdlife; **hinterland wetland restoration/ creation**; and minimisation of disturbance and predation pressure”
Crossland, 2000

Habitat Augmentation

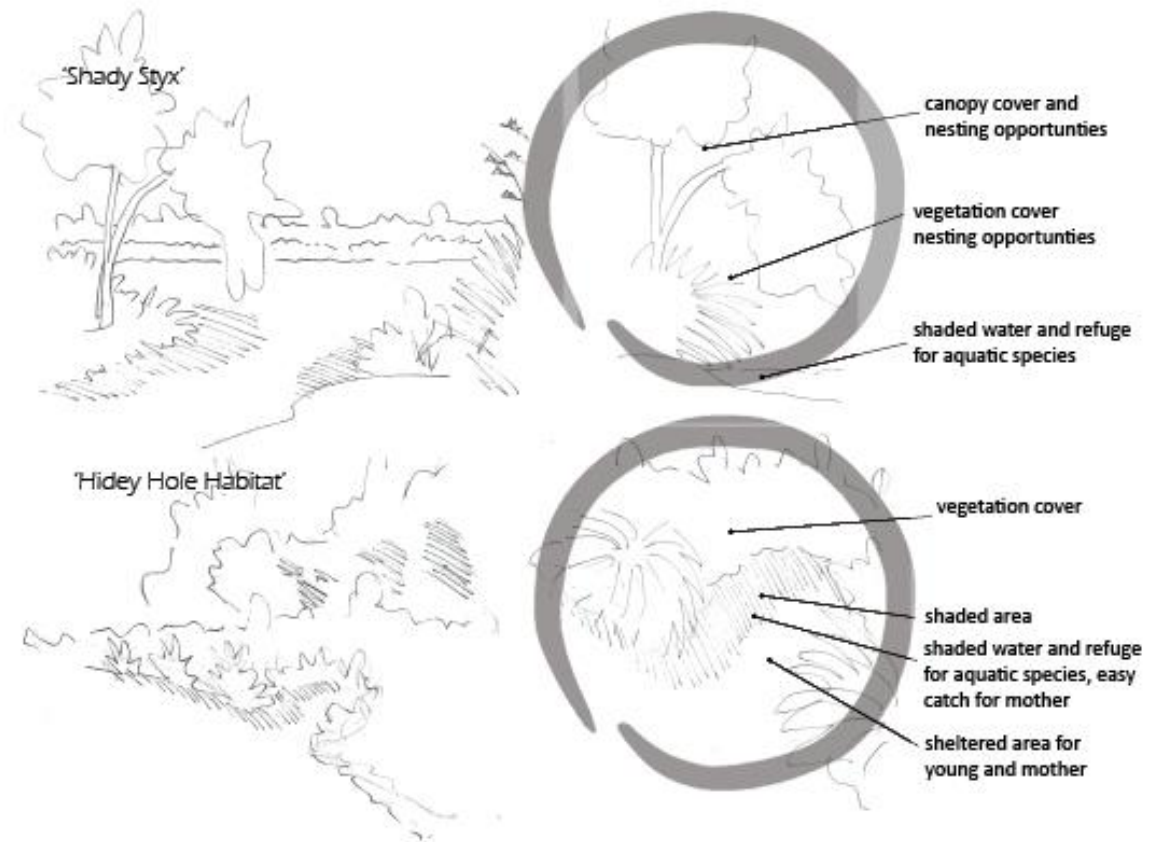
Terraced Pond Margins



Woody Debris



Riparian Margin Complexity



“On February 16 a range of constructed habitat enrichment features were installed... five habitat enrichment features were constructed, three aquatic and three terrestrial...”

Habitat Implementation

Perching Posts and Habitat Gabions



Habitat Islands



Native Bee Banks and Ephemeral Ponds



Habitat Complexity for Lizards and Invertebrates



Drought Root Refuges/ Reservoirs



Artificial Constructed Cavities

