BANKWEST *LANDSCOPE* CONSERVATION VISA CARD – FINAL REPORT

Project title: Dieback survey and mapping in two Threatened Ecological Communities on the Swan Coastal Plain.

Proponent: Robyn Phillimore

INTRODUCTION:

Dieback, caused by an introduced, microscopic, soil-borne fungus of the genus *Phytophthora*, is present throughout the forests and coastal plains of the southwest and is causing an irreversible decline of susceptible species. Two rare plant communities including the *Eucalyptus calophylla/Kingia australis* woodlands (type 3a) and the *Banksia attenuata* woodlands (type 20a), that occur on the Swan Coastal Plain, contain susceptible species and may therefore be at risk from the disease. These two communities are ranked as Critically Endangered and Endangered and are both listed on the TEC database. The *Eucalyptus calophylla/Kingia australis* woodlands community has an Interim Recovery Plan which lists dieback survey as a recovery action. $1000 was received to undertake dieback mapping at a number of threatened communities.

PROJECT OUTLINE

AIM:

To determine the extent and location of dieback within two Threatened Ecological Communities on the Swan Coastal Plain in order to determine priorities for treatment.

METHODS AND MATERIALS:

Field surveys for *Phytophthora spp.* (dieback) within the five reserves listed in the table below were undertaken in February 2002. One site listed in the original application was dropped as only a component of the total funds applied were received. The method of survey was examination of susceptible species for secondary symptoms of infection, supported by sampling and laboratory analysis where symptoms were inconclusive. Samples were processed by the Conservation and Land Management Vegetative Health Laboratory.

Plot survey data on base maps were provided by the client to form a Disease Distribution Map. The protectable areas protocol were applied to the Disease Distribution Map to produce a protectable areas map. Maps were supplied in a manually plotted format for digitisation. A report detailing the methodology, susceptibility of vegetation to dieback, dieback distribution and expression, risk analysis and recommendations for management was written for each reserve.
The following occurrences were surveyed:

Community occurrence	Community type	Total area (hectares) of reserves
Lambert Lane	Marri/Kingia	8.3
APB reserve Forrestfield	*Banksia attenuata*	8
Marangaroo Golf course	*Banksia attenuata*	20
Dundas Rd Forrestfield	Marri/Kingia, *Banksia attenuata*	25
Landsdale Road	*Banksia attenuata*	16

RESULTS:

Out of the five sites that were mapped, dieback disease was found to be present at two sites including Dundas Road Forrestfield and the APB reserve Forrestfield. These areas will now be targeted for control work. Copies of these reports have been forwarded to appropriate parties including local community groups, local government and other government departments.