



6.2.4 Environment Effects Act 1978

The *Ministerial Guidelines for Assessment of Environmental Effects under the Environment Effects Act 1978* provide a range of criteria that can be used to determine whether an Environment Effects Statement (EES) may be required for a project. Many of the listed potential effects that may warrant an EES for a project are related to flora and fauna issues.

Conclusion

The Minister determined in late December 2007 that an EES was not required for the Sugarloaf Pipeline, subject to conditions.

6.2.5 Net Gain - Victoria's Native Vegetation Management – A Framework for Action

The main goal of *Victoria's Native Vegetation Management – A Framework for Action* is to achieve a reversal, across the entire landscape of the long-term decline in the extent and quality of native vegetation, leading to a Net Gain. In applying the Net Gain approach to protection and clearance decisions, a 3-step approach must be adhered to. The three stages are described in order of priority below:

The management of Native Vegetation has been a major focus for the Sugarloaf Pipeline Project, relating to both Melbourne Water's commitment to sustainability and the project obligations under Victoria's Native Vegetation Management Framework (the Framework). The importance of native vegetation as a project consideration is also reflected in the high weighting assigned to the native vegetation component in the multi-criteria TBL (sustainability) assessments of each of the potential route options. The process of avoidance, minimisation and offsetting as it relates to the Sugarloaf project is further detailed below.

1. Avoidance

Avoidance of native vegetation was undertaken as the first step in native vegetation management for the project. All areas of native vegetation (as previously mapped by DSE) were included in the project GIS for consideration in relation to infrastructure sitings and route options. The DSE vegetation mapping was subsequently checked in the field for validity of EVC and the ecological attributes of these areas recorded (in terms of quality, measured as Habitat Hectares).

Where possible, native vegetation has been avoided, with several of the preliminary route options where native vegetation was present, having been given a low priority at this stage. This can be demonstrated in the following alignment priorities:

- Classification of Option B2 (Frog Ponds Road) where White Box, Yellow Box Grassy Woodlands (Grassy Woodlands) has been identified as a low priority option,



- Classification of the Hunts Land Option (G2) where significant roadside vegetation and a recognised biodiversity corridor occurs as a low priority option, and
- Classification of H1 and H3 from the Christmas Hills escarpment and the approach to the Sugarloaf Reservoir as a low priority option.

2. Minimisation

Minimisation is the second management requirement for vegetation management under the Framework. Minimisation is required where avoidance is not possible. Unavoidably, the preferred pipeline alignment passes through Toolangi State Forest. This option was decided upon due to the low point in the Great Dividing Range and the resulting reduction in pumping and related power/carbon emission issues. Where the preferred alignment intersects areas of native vegetation, clearance will be minimised through:

- Reducing construction corridor to bare minimum within areas of native vegetation (standard construction corridor requires 30m, minimum corridor may be as narrow as 15m);
- Potential tunnelling within Toolangi State Forest would result in a variety of project benefits, including minimising the extent of vegetation removal within the area.

3. Offsetting Vegetation Loss

Where vegetation loss is unavoidable and efforts to avoid and minimise have been exhausted, native vegetation clearance must be offset in accordance with the Framework, subject to DSE approval. The Alliance is currently developing an Offset Management Plan, whereby the final alignment and construction footprint will be considered in relation to the native vegetation present along the alignment. The final OMP will be produced at a time when a full understanding of vegetation loss can be derived from the final alignment with associated work methods, so a complete picture of vegetation loss can be understood. Discussions have already begun with a variety of organisation to establish where Habitat Hectare credits can be found and applied to the project, so the required 'Net Gain' in vegetation can be presented in accordance with the framework. To date such discussions have been initiated with:

- Yarra Ranges Shire Council;
- Goulburn Broken Catchment Management Authority; and
- Port Phillip and Westernport CMA (Yarra for Life)



Conclusion

The Sugarloaf Pipeline Project requires Net Gain offsets as part of the planning process under Victoria's Native Vegetation Management – A Framework for Action. As the final pipeline alignment has not been determined, a final Net Gain Assessment has not yet been completed.

Next Steps

Once the Net Gain Assessment is complete, The Alliance will need to undertake appropriate Net Gain offsets in agreement with DSE and in accordance with *Victoria's Native Vegetation Management – A Framework for Action* (DSE 2003a).

6.2.6 Catchment and Land Protection Act 1994

The purpose of the *Catchment and Land Protection (CALP) Act 1994* is as follows:

- To set up a framework for the integrated management and protection of catchments;
- To encourage community participation in the management of land and water resources;
- To set up a system of controls on noxious weeds and pest animals; and
- To repeal and amend various Acts concerning catchment and land management.

Conclusion:

Proper implementation of construction mitigation measures under an Environment Management System for pest and weed control and erosion protection, in particular, should enable compliance with responsibilities under the CALP Act.

6.2.7 Crown Land (Reserves) Act 1978

The *Crown Land (Reserves) Act 1978* is a key piece of legislation used to manage activities that occur within National Parks and other reserves attributed to the crown. Commonwealth areas managed by Parks Victoria (e.g. Kinglake National Park) are present within the study area however are not affected by the Project.

Conclusion:

Two reserves, Pert's Reserve (reserved under Crown Land (Reserves) Act) and Killingworth Road Reserve (unreserved under Crown Land (Reserves) Act) are managed under the Crown Land (Reserves) Act 1978 by Parks Victoria. If these two reserves are managed under this Act, a permit will be required under this Act for the Project, where activities are planned within these areas.



7. Conclusions and Next Steps

This report contains the findings of the flora and fauna assessments for the Sugarloaf Pipeline Project to date (8 February). It should be noted that the final pipeline alignment has not been determined and the flora and fauna assessments within the pipeline option corridors are continuing. Despite this, several environmental effects of the project have been reported in Chapter 5. It is evident from the current stage of field investigations that the Sugarloaf Pipeline Project will:

- Require the removal of large areas of remnant native vegetation of at least high conservation significance (particularly throughout Toolangi State Forest) if tunnelling is not feasible;
- Require the removal and result in the fragmentation of high quality fauna habitat (particularly throughout the Toolangi State Forest) if tunnelling is not feasible;
- Require the removal of native vegetation, including eight threatened EVCs if tunnelling is not feasible; and
- Have an effect on threatened flora and fauna species (including on at least 2 EPBC listed species, 9 FFG listed species and 26 DSE listed species).

The design of the Sugarloaf Pipeline Project aims to avoid and/or minimise disturbance to areas of very high and high conservation significance as much as possible. Attempts to avoid all vegetation should be made where possible. Where vegetation cannot be avoided, clearance must be off-set in accordance with the Victorian *Native Vegetation Management Framework*. Where removal of native vegetation is unavoidable, further survey (outlined below) must be undertaken prior to construction to minimise impacts. An Off Set Management Plan is currently being prepared.

The field investigations for the Sugarloaf Pipeline Project have detected threatened species and communities throughout the pipeline corridor. At present, some sections of the corridors remain unsurveyed. The Alliance is investigating opportunities for siting the pipeline alignment to avoid and/or minimise the loss of native vegetation. Ongoing investigations will facilitate detailed design and construction techniques. Therefore, the next steps are:

- Complete detailed field investigation of ecological values of the preferred option corridors to clarify the extent and condition of native vegetation throughout these areas and determine the location of other important ecological features (e.g. wetlands, hollow-bearing trees) in the vicinity of the preferred option corridors;
- Conduct targeted survey throughout areas of the preferred option corridors where threatened flora species are known or predicted to occur;
- Complete targeted surveys throughout areas of the pipeline corridors where threatened fauna species are known or predicted to occur. Particularly Striped Legless Lizard, Growling Grass Frog, Brown Toadlet and Southern Toadlet throughout the pipeline alignment;



- Complete the Net Gain and Off Set Management Plans;
- Investigate additional options where;
 - existing options have high unavoidable values, and
 - lower impact options are known or suspected to occur near by.



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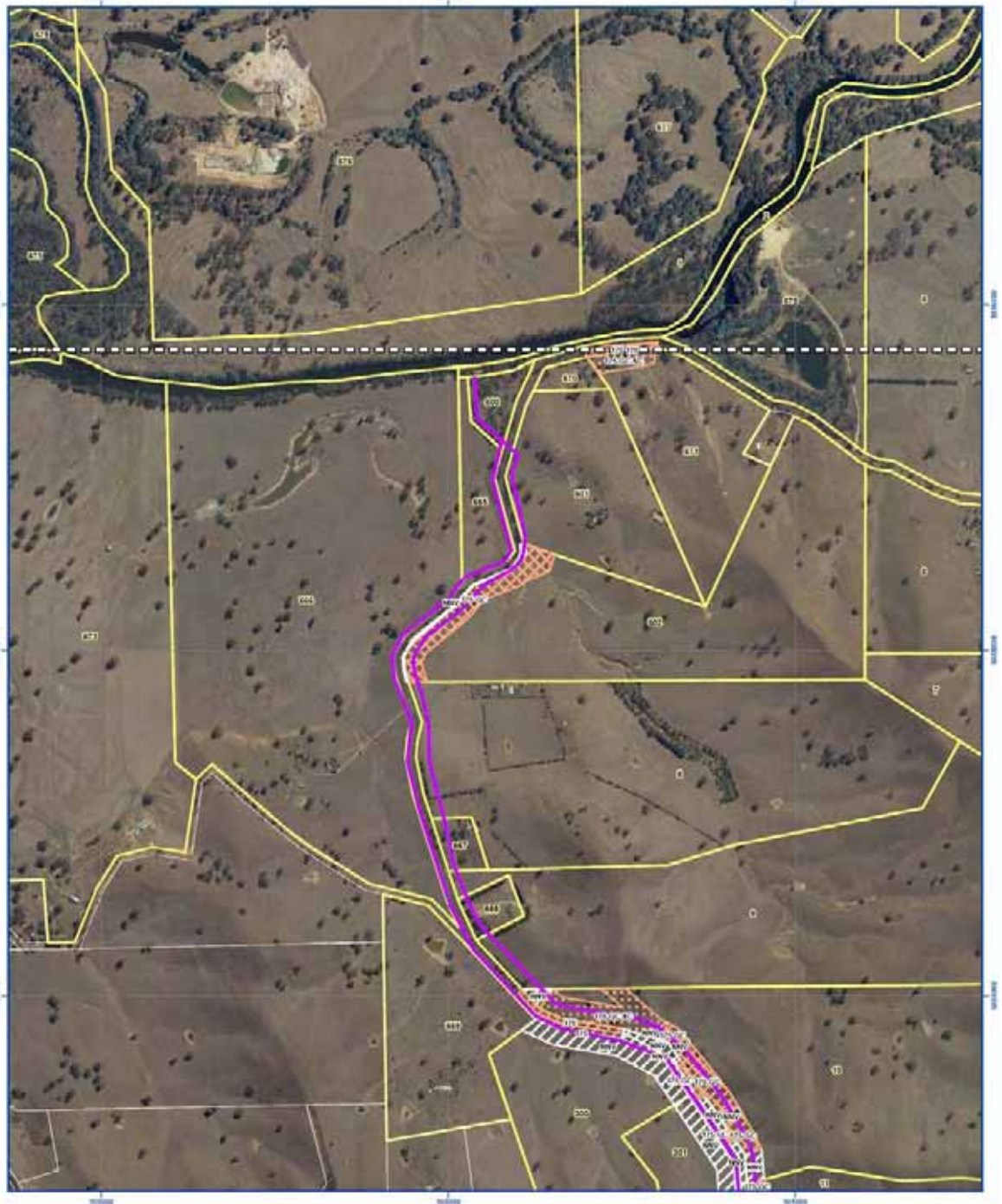
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Appendix A EVC Mapping



Sugarloaf Pipeline Project

Figure 4 - Ecological Vegetation Classes and Quadrat Locations Mapped During Fieldwork: Map 01 of 22

Legend			
Pipeline Corridor	Ecological Vegetation Classes	<ul style="list-style-type: none"> 45 45-SC 47 47-GC 49 49-GC 50 50-GC 51 51-GC 52 52-GC 53 53-GC 54 54-GC 55 55-GC 56 56-GC 57 57-GC 58 58-GC 59 59-GC 60 60-GC 61 61-GC 62 62-GC 63 63-GC 64 64-GC 65 65-GC 66 66-GC 67 67-GC 68 68-GC 69 69-GC 70 70-GC 71 71-GC 72 72-GC 73 73-GC 74 74-GC 75 75-GC 76 76-GC 77 77-GC 78 78-GC 79 79-GC 80 80-GC 81 81-GC 82 82-GC 83 83-GC 84 84-GC 85 85-GC 86 86-GC 87 87-GC 88 88-GC 89 89-GC 90 90-GC 91 91-GC 92 92-GC 93 93-GC 94 94-GC 95 95-GC 96 96-GC 97 97-GC 98 98-GC 99 99-GC 100 100-GC 	<ul style="list-style-type: none"> 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300
<ul style="list-style-type: none"> Retained Non preferred Possible Effect of Tunnel Stable Area Excavators Quadrat Centroids (approx) 			

It is a mosaic of predominantly sclerophyll vegetation, Melaleuca species dominated grassland, and *Phoradendron* *excelsum* woodland.

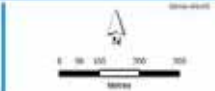
NWV = Non Native Vegetation

RT = Riverbank

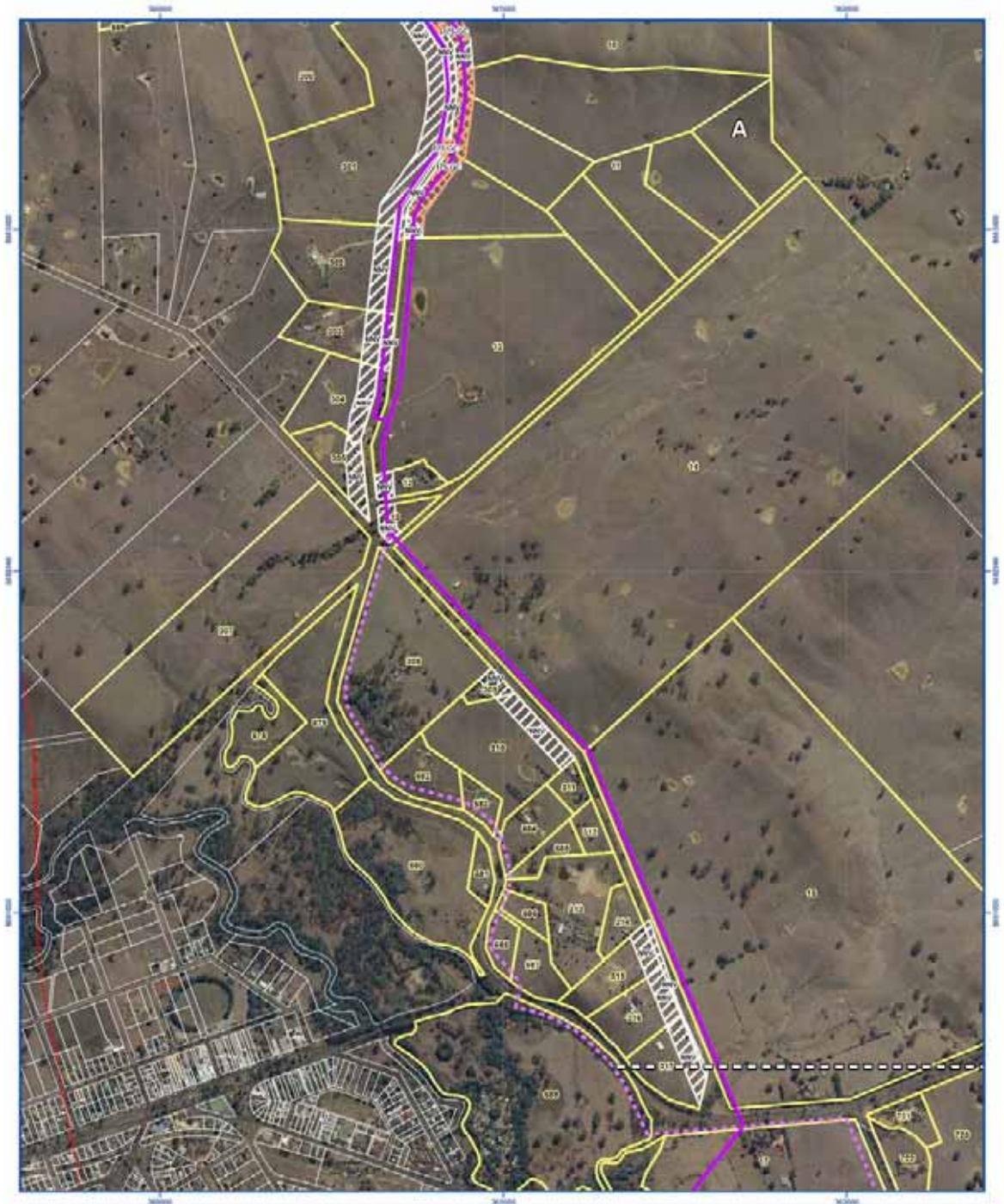
SC = scattered trees

SW = Swampy Ground

GC = Grassy Community

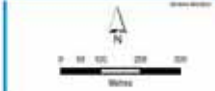


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Sugarloaf Pipeline Project

Figure 4 - Ecological Vegetation Classes and Quadrat Locations Mapped During Fieldwork: Map 02 of 25



Map 02 of 25

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