

CHAPTER FIVE: ASSESSMENT OF ALTERNATIVES

5.1 APPROACH TO THE ASSESSMENT OF ALTERNATIVES

As per Guideline 5: Assessment of Alternatives and Impacts (June 2006) the regulations require that alternatives to a proposed activity be considered. Alternatives are different means of meeting the general purpose and need of a proposed activity. This may include the assessment of site alternatives, activity alternatives, process or technology alternatives, temporal alternatives or the no-go alternative.

The regulations indicate that alternatives that are considered in an assessment process be reasonable and feasible. I&APs must also be provided with an opportunity of providing inputs into the process of formulating alternatives. The assessment of alternatives should, as a minimum, include the following:

- The consideration of the no-go alternative as a baseline scenario
- A comparison of the selected alternatives; and
- The providing of reasons for the elimination of an alternative

The following alternatives have been identified for consideration in this assessment:

- “Go” Alternative – Project proposal as outlined in this report with consideration given to the following process alternatives:
 - Layout Alternatives – Agricultural development of the entire study area vs. development of only approximately 300 hectares so as to accommodate site constraints (topography, watercourses and wetlands and vegetation).
 - Technology Alternatives – A number of potentially suitable windbreak tree species will be considered in the EIA process.
 - Site Alternatives – The proposed site is located on land owned by the applicant, and is situated adjacent to the existing River Bend Citrus farming operation and infrastructure (offices, workshops, storage area). While San Miguel Fruit SA does own other land parcels in the area (see Map 1.1 in Chapter 1); the development of these would require extensive infrastructure, increased transport requirements, and are expected to result in reduced production efficiency. It was therefore not considered cost effective to include these sites as potential site alternatives in this assessment process.
- No-go alternative - No development
- Additional alternatives as identified by I&APs and specialists - to date, no alternatives have been raised by I&APs or specialists

The purpose of this section of the report is to provide clarity on the scope of alternatives that will be considered in the EIA process.

5.2 NO-GO OPTION

The No-Go alternative represents the baseline against which all project related impacts are assessed. The no-go option would entail maintaining the current status quo, i.e. the retention of the vegetation on the site as rangeland for stock and / or game. No additional fruit farming infrastructure, or associated employment opportunities would be established. Given that the site

has access to water and agricultural infrastructure; and that the soils in the area have generally been shown to be suitable for citrus cultivation, the site potentially represents good opportunity for agricultural development. This option therefore would also result in the loss of potentially productive agricultural land.

The No-Go option will be assessed in full as part of the EIA process.

5.3 GO OPTION

The Go option would include the implementation of the project as outlined in Chapter Two of this Report. This will include consideration of the following alternatives:

5.3.1 Layout Alternatives

The initial proposal was the establishment of orchards across the entire undeveloped portion of the site. However portions of the site may not be suitable for citrus cultivation due to topography, soil characteristics, or other biophysical constraints. A number of layout configurations will be explored in the EIA process. The preferred layout will be informed by the findings of the specialist and technical studies to be undertaken during the EIA process, i.e. soil suitability study, wetland delineation, ecological specialist assessment, and heritage studies.

5.3.2 Technology (windbreak) Alternatives

Both Australian Silky Oak (*Grevillea robusta*) and Beefwood (*Casuarina* sp.) are used as windbreaks in the citrus orchards of the Sundays River Valley since both of these are exotics but are reasonably fast growing. Recently Yellowwood trees (*Podocarpus* sp.) have also been explored as a potential windbreak species; however these trees have lower growth rates than the abovementioned species. Growth rate, growth form, height, water requirements, root development, the availability of samplings, and pricing are all important considerations in the choice of windbreak species. A number of alternative windbreak tree species will be considered in the EIA process.

The most suitable layout and technology alternatives will be determined through the input from technical and environmental specialists during the EIA process.

The impacts associated with the Go option will be fully explored in the EIA phase of the assessment.