BRIQUETTING PLANT - COLLIE

AUSTRALIAN CARBON LTD

Report and Recommendations
of the
Environmental Protection Authority

Environmental Protection Authority
Perth, Western Australia
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BACKGROUND

Australian Carbon Ltd is proposing to establish a briquetting plant at Collie, Western Australia, approximately 160 km south of Perth. The EPA requested that the proponent prepare a Notice of Intent (NOI) which referred the proposal to the EPA for environmental assessment. The EPA examined the NOI and sought additional information on various aspects of the project from the proponent. On the receipt of this additional information the EPA the project and gives its advice in this assessment report.

The project is in two stages. Stage 1 is the construction of a plant to produce 30 000 tonnes/year (t/y) of various types of briquettes. The plant will also produce 70 000 t/y of coal char, some for use in briquette manufacture and some for sale. Stage 2 would be the upgrading of the plant to 120 000 t/y briquette production.

The briquettes would be made utilising coal from Collie and cellulosic material. It is planned that they will be sold on the domestic and international markets. The cellulosic material can be from many sources - sawdust, other wood waste or agricultural waste (straw, rice husks etc).

PROPOSAL

The proposed site for the plant is approximately 3 km south-west of Collie townsite on an area of land previously used during World War II for a grain distillery (see the attached map). The site is mainly surrounded by forest.

In summary, the process involves burning coal under reducing conditions to produce char which is then combined with raw coal, cellulosic material and a small amount of sodium nitrate. The resulting mixture is then heated and compressed to form various kinds of briquettes.

The process requires the following amounts of raw materials (tonnes/year). As indicated above surplus char will be sold.

	Stage I	Stage II
Coal	15 000	74 000
Cellulosic Material	22 500	94 000
Char	4 000	6 000

The sum of the masses of these materials does not match the final production figures because of the varying moisture content of the product and the raw materials. In its inital stage the project is proposing to utilise sawdust as its source of cellulosic material.

Raw materials and product will be transported to and from the site by road.

ENVIRONMENTAL IMPACTS AND MANAGEMENT

In considering the NOI the EPA gave particular consideration to the following environmental issues:

. the use of wood waste and the impact on forests;

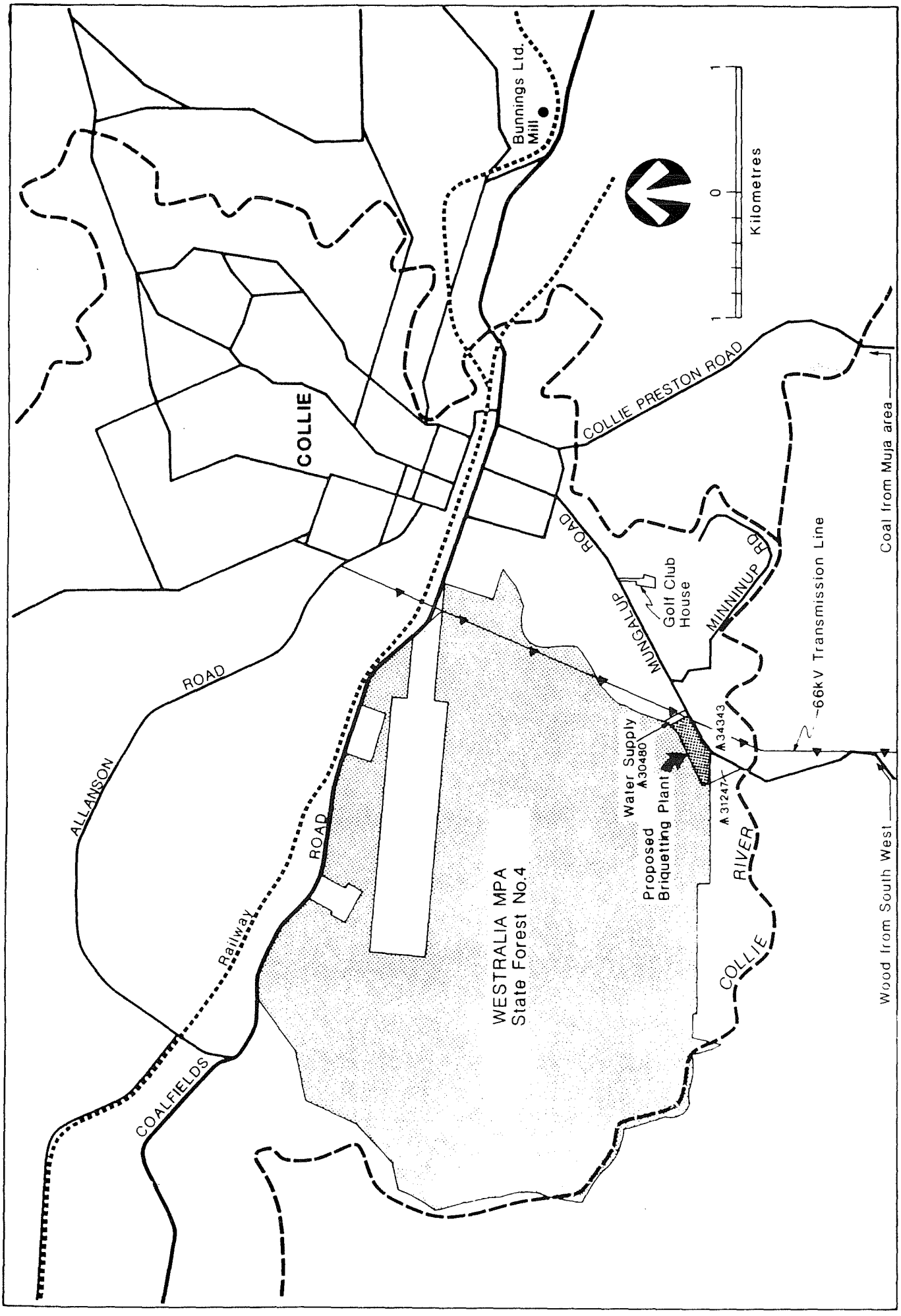

Figure 1. Location Plan (Source. Australian Carbon NOI)

. the effect of air emissions from the plant on the town of Collie; and

. the impact of the transport of raw materials on the town of Collie.

Based on the information in the NOI the EPA considers that there is an adequate supply of sawdust available for Stage I. The EPA investigated the possibility that the project may require the additional logging of native forests to supply cellulosic material for later stages of the project. Because of the diversity of cellulosic material that this project can utilise the EPA does not consider that there will be any necessity to log any additional native forest to supply this project. However, the EPA requires that the proponent refer the source and amount of additional cellulosic material to be used in later stages of the project to it so the Authority can assess any environmental impacts associated with its supply. The EPA has recommended accordingly.

The plant will be burning 168 000 t/y of coal in its char furnace. The sulphur content of the coal ranges between 0.2% and 0.8%. Assuming all the sulphur is converted to sulphur dioxide (SO2) this will result in a SO2 emission rate of between 0.085 and 0.0213 kilogram per second (kg/s). This represents between approximately 1% - 8% of the SO2 emissions from Muja power station. The EPA considers that the outlet temperature of the char furnace gas will result in a significant plume rise; consequently it is unlikely that there will be an impact from air emissions from the plant on the town of Collie or on the surrounding forest. The licencing of the air emissions will be carried out in accordance with the provisions of the Environmental Protection Act.

It is planned that the vehicles supplying the raw materials will enter the town from the south. Consequently they are unlikely to cause any major disruption to the town of Collie. In the event of any problems the EPA considers that these should be resolved in discussions between the Collie Shire and the nominee of the Minister for Transport and the proponent.

CONCLUSIONS AND RECOMMENDATIONS

1. Based on the commitments given in the NOI and subject to the following recommendations the EPA has concluded that the project is environmentally acceptable.

2. The Environmental Protection Authority recommends that the project could proceed subject to the commitments in the Notice of Intent and Recommendation 3.

3. The Environmental Protection Authority recommends that the proponent provides to the EPA for its assessment, details of the source of the additional cellulosic material required for later developments after Stage I.