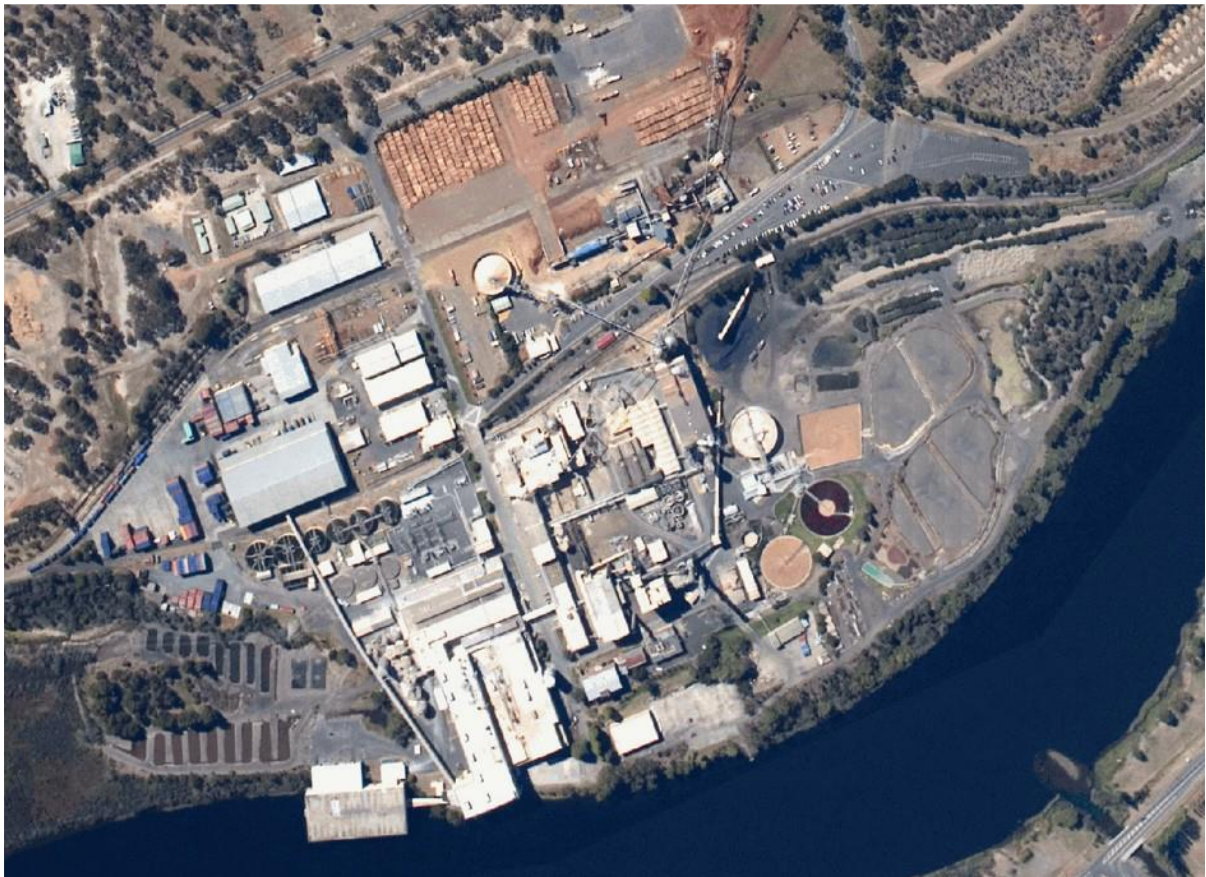


Environmental Effects Report - Coal Transition Plan



April 2025

1. Part A – Proponent Information

1.1 Proponent Details

Table 1: Proponent Details

Proponent Name	Boyer Paper Mill Ltd
Address	1279 Boyer Road Boyer Tasmania 7140
ABN	84 009 477 132
Contact Details	P: (03) 6261 0111

Table 2: Principal Contact

Contact Name	Isaac Brett Environmental Services Coordinator Boyer Paper Mill Ltd
Contact Information	P: (03) 6261 0120 E: Isaac.brett@boyercorporation.au

1.2 Introduction and Background

Norske Skog is a global pulp and paper business with mills operating in Europe and Australasia. The Australasian business arm has a single mill in Australia located at Boyer in Tasmania. The Boyer mill can produce up to 250,000 tonnes of newsprint and light-weight coated paper for customers both nationally and abroad. Part of the pulp and paper manufacturing process is the use of steam as a thermal energy source. In order to produce the levels of steam required, a coal fired boiler is in continuous operation to give stable and reliable steam generation that meets manufacturing demand. The current boiler, (No. 5 Boiler) has been in operation since it was commissioned in 1990 and for the duration of its life has been operating on coal supplied from the Fingal valley in Tasmania.

In late 2022, Norske Skog Boyer was informed that our current coal supply (Cornwall coal) would be unable to meet our demand past the expiration of the current contract. As such, Norske Skog began the process of sourcing coal from interstate. Supply was sourced from the Hunter valley region surrounding Newcastle. This new coal supply (Yancoal) was chosen due to its similarity to the coal supply that had been running the No. 5 Boiler for the past 30+ years. Despite the similarity, several differences made it necessary to begin extra processing of the new coal supply onsite at Boyer Mill. During this change, Boyer Mill continued to operate under Environmental Permit No. 3411 which has been varied by Environment Protection Notice (EPN) 657/2 and further varied by EPN 657/3. Boyer Mill continues to operate under these conditions during this transition. There is also a separate EPN under which the coal is processed, this is further detailed in section 2.4.

In April of 2025, Norske Skog sold the shares of the Norske Skog Boyer Mill. The name of the paper mill changed to Boyer Paper Mill Limited and this is reflected in the rest of this proposal.

2. Part B – Proposal Description

2.1 Description of Proposed Activity

2.1.1 Proposed Activity

Activity	Screening out of oversize coal and further processing of the oversize coal to bring it down to a size that is within the specification of the No. 5 Boiler and also suitable for the existing coal feeding system leading to the No. 5 Boiler. As per the Environmental Management and Pollution Control Act (EMPCA) this activity is classed as a Level 2 activity under section 6 a – Materials Handling, due to the annual volume of coal (approx. 90,000t) that will need to be processed.
New or existing	This activity is a modification of the existing coal system onsite at Boyer Mill.
Material	Additional equipment will be brought onsite to run these activities. This includes, but is not limited to, a portable screen and a portable crusher/sizing device. This activity will need to continue for the length of time Boyer Mill is using the new Mainland Australia Thermal Coal (MATC) supply, or a similar thermal coal
Maximum processing quantity	Using the annual coal consumption from 2023 of 90,500 tonnes, all of this will be screened to ensure no large pieces of coal make it through the coal feeding system and block up the coal feeders. The oversized portion of the MATC has been approximately 10-17% of the total volume, this equates to approximately 10,000 – 15,000 tonnes of coal that will need to be separated and re-sized.
Method/s	Three main items will be brought onto site. These are a portable mechanical screen, a crushing/sizing device, and a stacking conveyor to allow a sufficient pile of screened and/or crushed coal to be placed over the beginning of the coal feeding system. All other equipment was already present onsite.
Transport	The MATC supply will be brought to Boyer Mill exclusively by train from the soft stand at the Tas Rail yard in Bell Bay. This will limit the movement of trucks within the state and onsite at Boyer Mill. In the short term, onsite movements around the coal stockpile have increased while the best method of processing the coal is determined. These movements are limited to a front-end loader and an excavator. It is believed that once a suitable method of processing is settled on, movements of the front-end loader will also be minimised. Train movements of coal into Boyer Mill will be unchanged, remaining at 4-5 per week.
Stockpiling	MATC will be the only new material to be stockpiled onsite.
Area of disturbance/activity footprint	No area of the site will be disturbed by this activity as it will take place where the existing coal stockpile is located. No land will be cleared over the life of this proposal.
Major equipment	All permanent equipment related to pulp and paper manufacture will remain and a portable mechanical screen will be brought onsite to screen the coal. A crushing/sizing device will also be brought onsite.

	Currently this is on an as needed basis, but an inline device is now our preferred approach to streamline the process.
Infrastructure	All existing infrastructure will remain with no adjustments or proposed buildings, structures, or internal and external roads.
Proposal timeline	The project will be ongoing whilst the No. 5 Boiler is operating on MATC. A grant was received for a thermal energy project which, among other things, considered the feasibility of conversion away from coal. This project was completed and found that the most suitable option was to remain using a coal fired boiler until a time when sufficient electrical energy sources could be guaranteed, upon which the likely transition would be to electrode boilers.
Operating hours	The hours of screening and crushing/sizing will be during dayshift hours, 7am – 7pm.

2.1.2 Location and Planning Context

Location	The activity will take place at Boyer Paper Mill, 1279 Boyer Rd, Boyer, 7140.
Planning permit	A Development Application will be submitted to the council as requested. This will be done once the information required by the EPA is known, as shown in the attached email from Daniel Marr of Derwent Valley Council. These two processes will then run in parallel.
Land zoning and tenure	The land is zoned for industrial use.
Use Class and Permissibility	Manufacturing and Processing.

2.1.3 Description of site and surrounds

Land use	Boyer Paper Mill is located on the Derwent River near the township of New Norfolk, approximately 35 km up river of Hobart. The Boyer Mill site (Section 2.2.2) consists of approximately 600 hectares of freehold property with small enclaves of land within the boundary that are owned by other parties (e.g. TasWater and Barwicks). Nearest domestic residences are located along Cockerills and Boyer Roads to the northwest, and at Sorell Creek on the Lyell Highway across the river to the south.
Topography	The activity will take place within the current area allocated as the coal stockpile (Section 2.2.3). As such the topography of the area will remain unchanged. This coal stockpile area is a couple of meters above sea level and has a very slight slope to the NE, in the direction of a pond which is in place for any runoff.
Climate	Annual Rainfall from 2023 measured at the onsite weather station was 361.4 mm. Average temperature measured at the onsite weather station was 12.7 degrees Celsius. Wind Roses are attached and are from the Bushy Park weather station approx. 18 km away. These are more representative than the roses from the top of Kunanyi/Mt Wellington. The New Norfolk weather station has been inactive since 1983.

Geology	The activity will take place above ground and with no impacts on geological features. No potentially acid forming (PAF) material will be formed onsite from this activity.
Hydrology	<p>Boyer Paper Mill is located on the edge of the Derwent River in southern Tasmania. This is the nearest body of water to the mill. There is also an artificial wetland created within Boyer Mill that discharges to the Derwent River. Groundwater is present and monitored at 6 monthly intervals.</p> <p>Stormwater is collected via a dedicated stormwater system and monitored after large rainfall events. Several settlement ponds are also located onsite to remove solid particulates from several processes onsite including the filtration plant, No. 5 Boiler and the Woodmill. These ponds are monitored and cleaned out periodically to ensure clean water is entering the Derwent River.</p>
Natural values	<p>No vegetation clearing or disturbance of habitat will result from this project. The nearest vegetation will be pine trees bordering the coal stockpile on the east.</p> <p>According to the Natural Values Atlas and TASVEG 4.0 the Tasmanian Devil and river clubsedge are the only threatened species in the area of Boyer Mill and these will not be impacted by the proposed activity.</p>

2.2 Maps and Site plan/s

2.2.1 General Location map



2.2.2 Map of the Land

Tools

Identify Results Disclaimer ×

One feature found in one layer

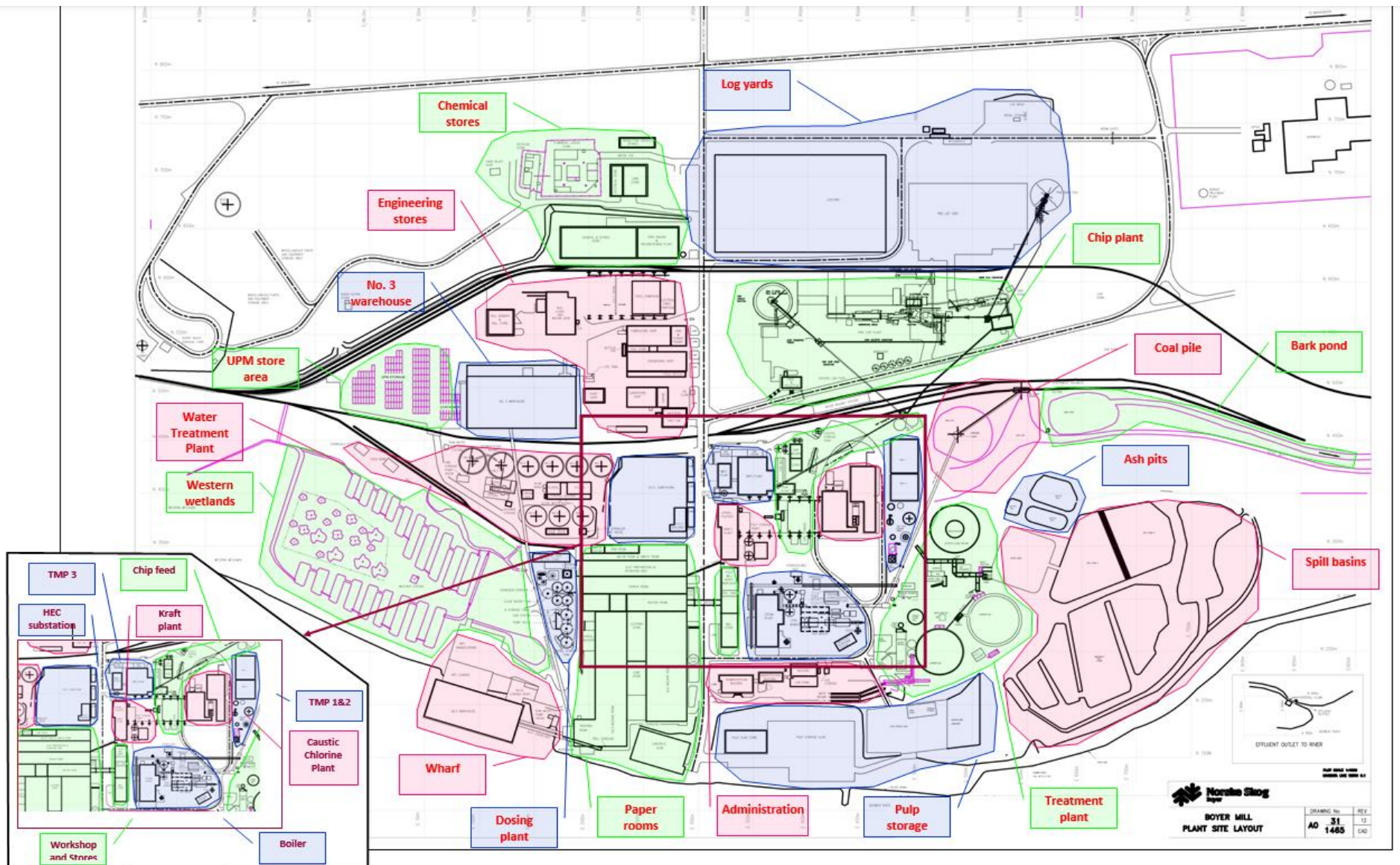
▼ **Cadastral Parcels (one feature)**

+ **Warning - Property boundaries are indicative only. See explanation [here](#).**

Property	
Property Address	'NORSKE SKOG BOYER' - 1279 BOYER RD BOYER TAS 7140
Property ID	1589865
Title Reference	113287/1

POI: GDA94 MGA55 : 508521E, 5263829N Identify Options

2.2.3 Site Plan



2.3 Project Rationale and Alternatives

The main driver behind this project was the need to source coal to feed the No. 5 Boiler and keep the Mill running once Cornwall coal was no longer supplied to the Mill. Upon learning of the fact that a new coal supply was needed, a project team was formed. This proposal is the result of several months work by a project team to identify a coal that was most similar to the coal feeding the No. 5 Boiler for the last 30+ years, and that also matched the specification of the No. 5 Boiler. The factors considered included, but are not limited to, calorific value, ash fusion temperature, ash content, volatile matter, total sulphur, Hardgrove Grindability Index, spherical temperature, ash flow temperature, fixed carbon, fuel ratio and size distribution. Out of this project it was determined that coal sourced from the Hunter Valley in Newcastle (MATC) would be the best fit to replace the incumbent coal. Despite the proportion of coal that was deemed oversize (i.e too large to fit through the current coal feeding system), this coal was chosen as it was the most similar, in size and key quality parameters, to the incumbent coal that was being used in the No. 5 Boiler.

2.4 Existing Activity

High-pressure steam is generated at the No.5 Boiler, which has a rated capacity of 110 t/h steam at 6,200 kPa and 480°C. The furnace volume is 680 m³. This incorporates a travelling grate and a heating surface of 7,925 m². Furnace temperature is 1,330 to 1,380°C depending on firing rate. Fuel feed residence time is between 30 and 50 min. Initial fuel consumption when entering the furnace is approx. 70% in the first 2 to 5 min. The emission stack is 60 m high and a three section electrostatic precipitator controls particulate emissions with exceptional efficiency. An in-line obscuration meter in the stack measures the opacity of the flue gas.

The No. 5 Boiler is a 24 h operation and has historically run with >99% availability. Complete shutdown of the boiler only occurs in the event of urgent maintenance, external factors or planned scheduled maintenance. Planned shuts are typically on 1-2 year cycles and vary in duration from 2-6 days. Numbers 3 and 4 Boilers were previously used as stand-by boilers during No. 5 Boiler downtime. However, for environmental reasons, the stand-by boilers have not been used since 2006 and total mill shutdown now occurs during No. 5 Boiler maintenance.

Coal is the primary fuel used in steam raising, though the No. 5 Boiler was designed to burn hog fuel as well. Coal was delivered by truck and train from the Cornwall mine in north-eastern Tasmania. The new, Yancoal, is transported to the Boyer Mill by train only. It is unloaded to an on-site stockpile and transported to the boiler by conveyor. This conveyor system is unchanged from when Cornwall coal was in use. The changes occur prior to this once the Yancoal is unloaded onto the stockpile. From here the coal is passed over a screen and the oversize fraction (>40 mm) is removed and stockpiled separately. Once large enough, this stockpile is then crushed in a campaign to reduce the size to that which is suitable to feed into the No. 5 Boiler. Currently Boyer Paper Mill has Environmental Protection Notice (EPN) 11396/3 which covers this activity. Screening operations under EPN 11396/3 operate during dayshift hours only. That is 7am – 7pm Monday to Sunday. Crushing is permitted in a campaign capacity for up to five (5) consecutive days per calendar month during dayshift hours, 7am – 7pm Monday to Friday. This activity is necessary for operation of the No. 5 Boiler as without it, the larger pieces of coal would prevent the No. 5 Boiler from operating.

This would lead to mill-wide downtime as steam is critical for many aspects of the papermaking process, including drying the paper, pre-heating chips, maintaining correct temperature etc.

The No. 5 Boiler consumes approx. 90,000 tpa of coal. In 2023 consumption was 90,465 t, which when averaged is roughly 248 t/d. There is a strong seasonal variation in coal use associated with seasonal ambient conditions, namely river/filtered water temperature.

Number 5 Boiler is an 'attended boiler' which means it is under the direct control of a qualified operator at all times. The Boiler Attendant is present 24/7, with additional support provided by a Mill Services day worker and the Shift Services Coordinator. The No. 5 Boiler remains attended even during total mill shuts primarily for emergency first response. Boiler Attendant key duties are:

- Monitoring and control of boiler
- Respond to alarms
- Operate boiler in manual when required
- Manage coal feeders/grate bed depth
- Clean zone dampers
- Man phones/radio (1st response)
- Water test/boiler water
 - Demin
 - Condensate
 - Boiler water (PO4)
- Monitor demin train regen steps
- Fault-find demin train issues
- Plant rounds/inspections
 - Fans
 - Bearings
 - Grit refiners
 - Turbine
 - Ash conveyors
- Housekeeping
 - Basement
 - Ash conveyors
 - Coal conveyors
 - Walkways/conveyors

There has only been one community complaint since 2016. This was around emissions exiting the No. 5 Boiler stack. After the Total Mill Shut (TMS), the electrostatic precipitators were unable to be started until the boiler reached operating temperature. The Environment Protection Authority (EPA) were notified of this prior to the TMS so that they were equipped to deal with any community complaints. No other complaints have been fielded from the community or the EPA regarding the No. 5 Boiler or the coal feeding system.

One breach of regulatory approval has occurred since the switch to Yancoal. This was in December of 2023 when the annual stack test of No. 5 Boiler was conducted. This showed that the total particulate load was higher than the approved 100 mg/m³. A report was sent to the EPA documenting the reasons why we believed this limit to have been exceeded and we are working with the EPA to implement changes to prevent this from occurring again. A subsequent stack test in July 2024 (non-NATA accredited) revealed that the total particulates had subsequently reverted back below the regulatory limit. Another NATA accredited stack test will be conducted in November 2024.

There have been no contraventions of environmental law.

3. Part C – Environmental Impacts and Management

3.1 Noise Emissions

The two primary concerns around this activity are noise emissions and dust emissions. The main sources of noise from the proposed activity are the screen, the crushing/sizing equipment when onsite, and the front end loader that moves the coal. There is also a tracked excavator in the area however, the noise emissions from this machine are negligible over the reversing beacon from the loader and the screen and crushing/sizing equipment.

For the noise emissions, we contracted Noise Vibration Consulting (NVC) to come onsite and conduct a noise survey of the screening and crushing operation. This survey was completed on 03 July 2023 and showed that the noise produced from the screening and crushing/sizing activities would be of negligible impact to the surrounding community and would be lost in the general noise from the Boyer Mill site. Hence, there would be no effect on the nearest noise sensitive premises. The NVC report is attached to this document. The same screen as when the measurements were taken is still in use.

It should be noted that at the time of the survey, a bucket crusher, on the arm of an excavator, was in operation. This has since been deemed unsatisfactory for the purpose it was intended and, with approval from the EPA, we have moved to a campaign crushing process whereby several months' worth of coal is crushed in a maximum of 5 consecutive days per calendar month, as per EPN 11396/3. This crushing is only conducted during dayshift hours, 7am – 7pm. The screening is also only conducted during dayshift hours, however, this takes place on a daily basis. Several EPA personnel were onsite during this campaign crushing activity, including some from the noise department who took noise readings. They were happy with the output from the crushing operation. We do not have the readings that were taken on the day, however, the crushing is not audible over the screening operation. Future arrangements may include more frequent processing of the oversized coal or the use of inline crushing/sizing to achieve a more even blend of coal being fed to the No. 5 Boiler.

Given the outcomes states in the NVC report, it is extremely unlikely that the proposed activity will have any nuisance noise associated with it. This can be seen in the table below where the predicted sound level at the nearest noise sensitive premises is shown along with background noise from the 2022 Annual Noise Report also conducted by NVC. The sound power levels are also shown in a separate figure below.

Table 1. Predicted cumulative noise levels at nearest noise sensitive premises.

Source	Location	Distance (m)	Predicted Sound Pressure Level (dBA)	Background Noise Level from 2022 Annual Noise Survey (dBA)
Screening and Conveying	5	500	43	56
	13	800	37	52
Crushing	5	500	37	56
	13	800	32	52
Total	5	500	44	56
	13	800	38	52

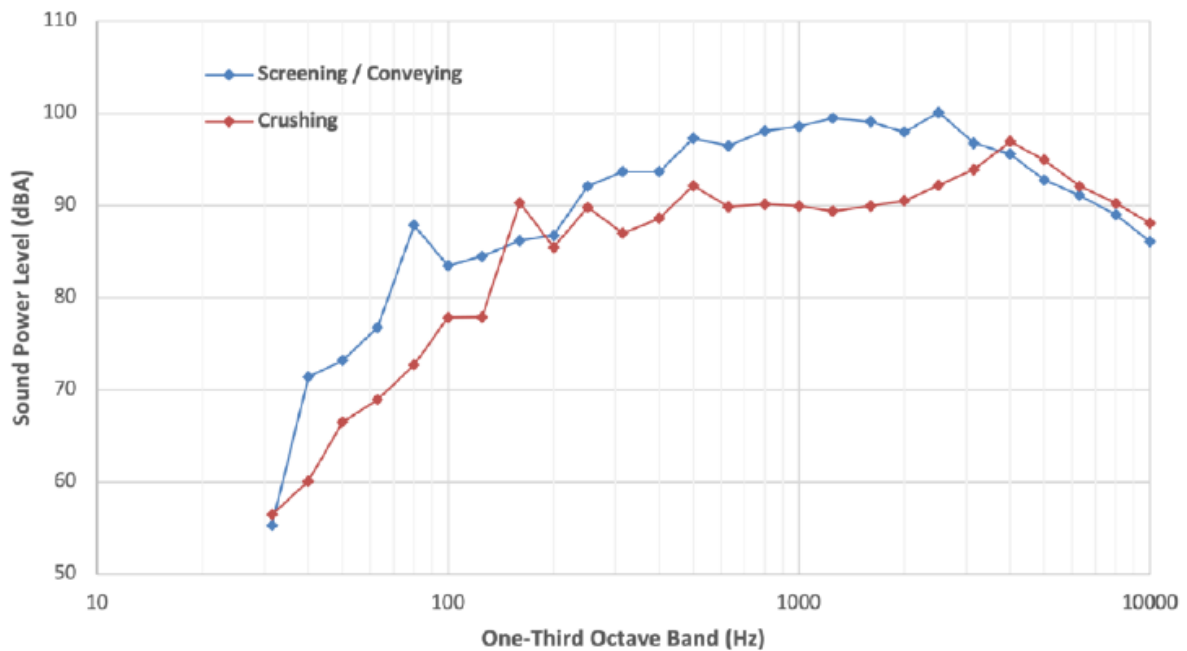


Figure 1. Sound power levels of the screening and crushing activities.

Again, it should be noted that the sound power levels of the crushing activity were using a jaw crushing bucket on the arm of an excavator. The EPA have recordings of a mobile crushing unit that has been subsequently used, however, the crushing unit is less audible than the screen in both cases.

If a noise complaint was received, and identified to be as a result of the screening and crushing operations, this activity would cease until suitable control measures could be implemented such as physical barriers to prevent noise emissions. However, evidence from Table 1 shows this to be very unlikely and we do not perceive this to be an issue as all recorded sound pressure levels are at least 12 dBA below background noise recorded during the 2022 Annual Noise Survey.

3.2 Air Quality

The second most critical parameter considered was the air quality in the surrounding area. Whilst during the routine operation of the coal feeding system on Cornwall coal, the added screening and crushing can create more dust emissions. Routine monthly monitoring has been conducted for many years and there was no observable increase in dust since the screening and crushing operation began. This is a requirement in the environmental Permit for the Boyer Mill. The dust monitoring locations are shown in Appendix C, section 5.3.3.

The coal is delivered to site in the same way as previous, via train, and unloaded in the same location. From here the coal is passed over a screen and the larger pieces of coal (~>40mm) are removed and placed in an oversized coal pile. The screened coal then moves forward using the existing coal feeding system. Once the oversized coal pile has reached sufficient volume, which is after approx. two months, a mobile crusher/sizer is brought onsite. Continuous operation with a small sizer may be considered in the future to streamline the processing of the oversize coal. Either operation will crush/size the oversized coal to a suitable size for feeding the No. 5 Boiler. The coal is again passed over the screen to ensure that no large pieces will block up the feeding mechanism in

the No.5 Boiler. This crushed coal is then fed into the No. 5 Boiler with the original screened coal to achieve a homogenous product.

The screen and crusher are the main sources of dust generation with the front end loader also generating some dust, in dry periods, while it is moving about. However, the nearest sensitive residences are approximately 650 m and 730 m (straight line distance, from NVC report) from the centre of Boyer Mill. These distances are quite large, and there have been no communications from residents about any dust coming from the Boyer Mill site. Despite this, we have precautions in place to suppress any dust by using water sprays around the coal pile if dust is noticed. Also, during the campaign crushing operations, some crushing units are fitted with water sprays to minimise the dust generated during crushing. These are always turned on to proactively keep the dust to a minimum. Other crushers/sizers are fully enclosed and produce minimal dust. There is also significant vegetation surrounding the coal stockpile to help filter the air if necessary. The rest of the coal feeding system remains unchanged and free of dust related issues.

As per the site plan in section 2.2.3 above, the coal processing area is south of Boyer road, equidistant between Boyer road and the Derwent river.

This proposal is consistent with the Tasmanian Environment Protection Policy (Air Quality) 2004.

3.3 Water Quality

The new processing of coal will take place in the existing coal stockpile area. This is approximately 300m from the nearest waterbody which is the Derwent River. This activity will have little to no impact on the surrounding waterways as the activity is taking place within the current bounds of the coal storage area. Any water will run through the coal and into the centre of the stockpile due to the topography of the area as referred to in section 2.1.3.

In the rare case that heavy rainfall leads to water leaving the coal stockpile area, there are two ponds nearby that will allow any material to settle out before the water reaches the Derwent River via the Combined Effluent Stream (CES) exiting Boyer Mill. There is also reeds and other vegetation within these ponds that can help to filter any potential runoff. The CES is closely monitored daily as part of the Permit associated with the Boyer Mill. The CES location can be seen in section 5.3.4 at the end of this document. No change in this discharge has been associated with the new coal processing. Groundwater monitoring in the area is also undertaken on a 6 monthly basis and no changes associated with the coal processing have been seen. If any change is noted and determined to be from the coal processing activity, this activity will cease and further bunding will be put in place to prevent liquid discharge from the coal stockpile area.

3.4 Natural Values

No clearing or disturbance of native vegetation or potential habitat for native fauna is needed for the additional coal processing. There will also be no impact to threatened fauna, flora or vegetation.

3.5 Waste

No waste will be produced due to the additional processing of the coal. All machinery will be serviced outside of this area with the exception of the screening apparatus. This service will be conducted by a service technician experienced with the equipment. In the case of accidental release

of oil or other machinery waste, a spill kit is near by to stop environmental harm from occurring due to the accidental release.

3.6 Site Contamination

This area of Boyer Paper Mill has not been used for activities in the past which may have caused any contamination of soil or groundwater. This area has been used as a coal stockpile for more than 40 years. Groundwater assessments are conducted on a six monthly basis and historical data shows no increase in contamination in or around the area where the coal processing will occur. These results can be found in the annual report provided to the EPA.

3.7 Environmentally Hazardous Substances

No environmentally hazardous substances will be permanently stored on this area of land. The machinery in use will have hydraulic oils, fuel and other oil present in order to function correctly. The machinery will be serviced in a designated service area, with the exception of the screen which will be serviced in situ by a service technician. Any waste oil or fuel removed from the screen will be removed from the area by the service technician.

If there is an accidental release or spill of the hydrocarbon materials (fuel, oil etc) there is a spill kit in the area which will be used to contain and remove the material from the site to be disposed of properly.

3.8 Environmental Impacts of Traffic

The only extra vehicle movements onto site will be the transport of mobile crushing equipment when a campaign event is taking place. In this case a mobile crusher, excavator and front end loader are brought onsite to complete this activity and then they are removed from site. This is a negligible increase in traffic onto the site with six total movements every month at most.

3.9 Monitoring

All monitoring specific to this activity has been undertaken. This was the NVC noise assessment. All other monitoring, dust (monthly), groundwater (six monthly), stormwater (twice annually), and discharge into the Derwent River (daily), will continue to be monitored at the designated intervals, shown in parentheses above, in the site Permit. Any significant variations determined to be as a result of the coal processing will be investigated.

The monitoring locations for dust, groundwater, stormwater and the combined effluent stream are attached as Appendices at the end of the document.

3.10 Decommissioning and Rehabilitation

This coal processing will take place on the Boyer site as long as this coal is used in the No. 5 Boiler or until a suitable offsite location can be found where the processing can be done. An offsite location would be preferable due to the likelihood of getting a more homogenous mix of crushed and screened product which would be beneficial for the No. 5 Boiler.

Upon cessation of the activity, the screening and crushing materials would be removed and the site would be returned to its pre coal processing state. If there was a cessation of coal as a fuel source for the No. 5 Boiler, or the Boyer Mill ceased to operate, the Decommissioning and Rehabilitation Plan for the Boyer site would be enacted.

4. Part D – Summary of Proposed Management Measures

Table 2. Proposed Management Measures

No.	Proposed Management Measure	Timeframe
1	Monitor Dust at current monitoring points for any increase in airborne emissions	Ongoing
2	Implement dust reduction measures if needed e.g water sprays	If needed based on results of No. 1
3	Monitor the CES daily as per Permit requirement and if changes are noted and determined to be as a result of the coal processing activity, install further bunding to prevent this liquid runoff from entering the CES.	Ongoing
4	If a noise complaint is received related to the crushing operations, we will cease crushing until the complaint has been investigated and the cause rectified.	Upon receiving complaint relating to coal crushing

5. Appendices

5.1 Appendix A – Noise Impact Assessment (attached)

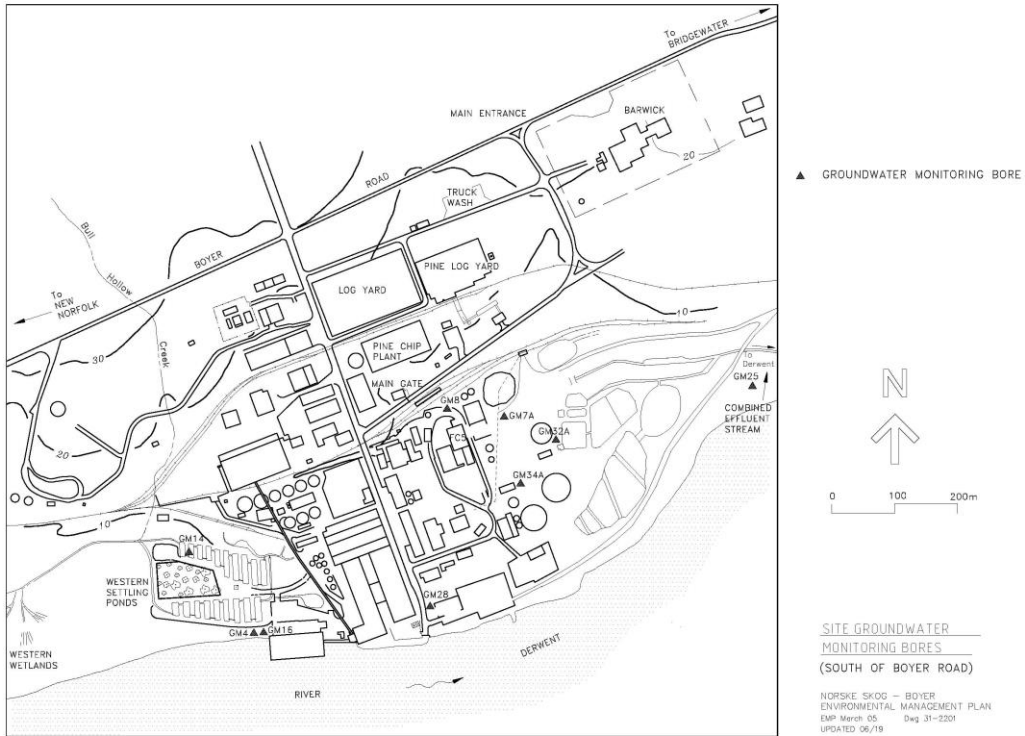
5.2 Appendix B – Advice from Derwent Valley Council (attached)

5.3 Appendix C – Location of Monitoring Points

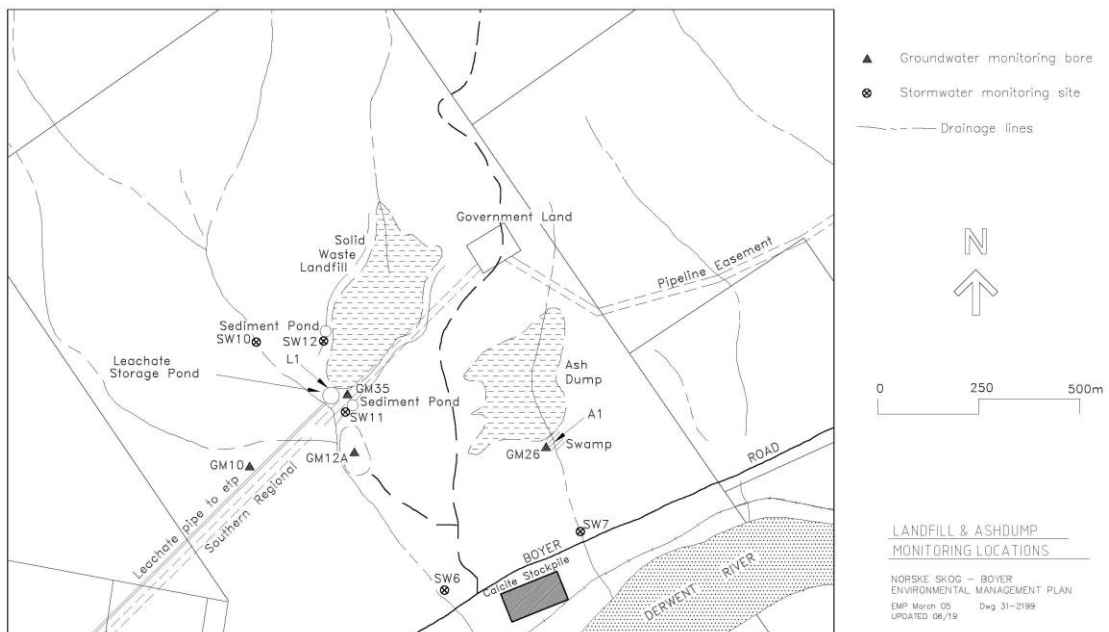
5.3.1 Stormwater Monitoring Locations



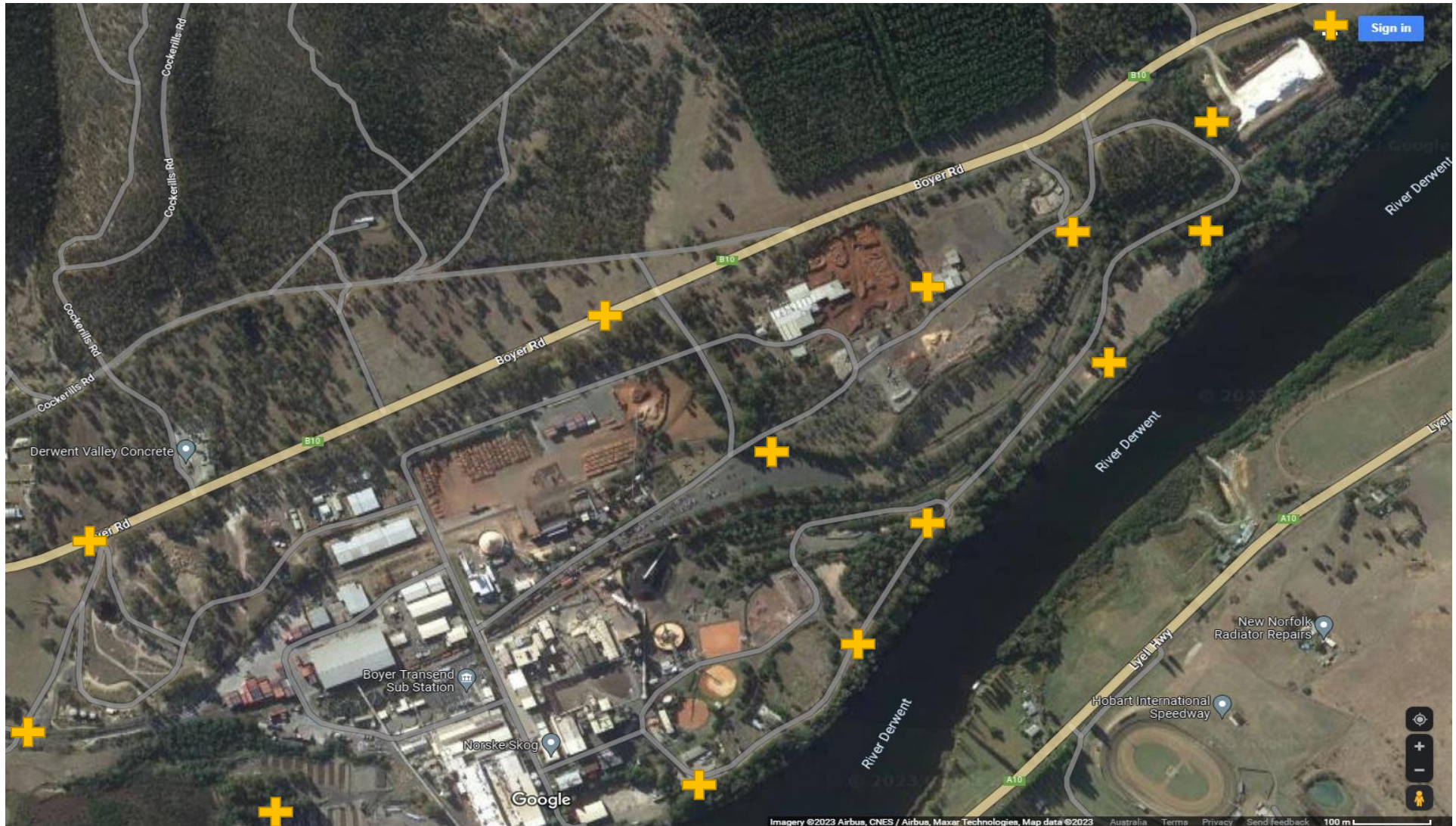
5.3.2 Groundwater Monitoring Locations South of Boyer Rd



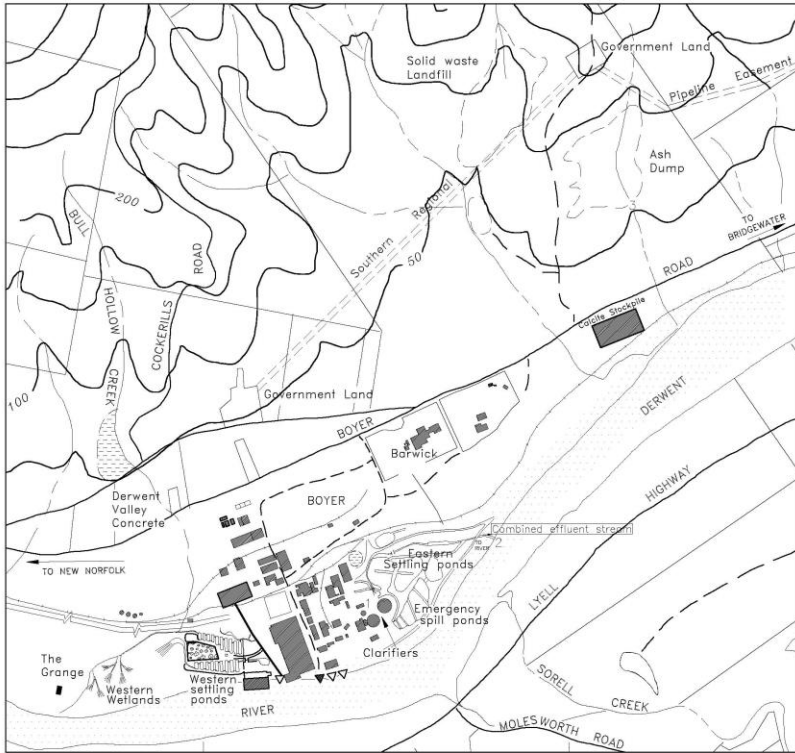
North of Boyer Rd



5.3.3 Dust Monitoring Locations



5.3.4 Combined Effluent Stream (CES) Location



- 1. Sewerage Monitoring Point
- 2. Discharge from Effluent Outfall (monitored)
- 3. Discharge from Ash Dump (Leachate)
- ▼ Monitored Stormwater Discharge Points direct to river (major s/w discharges) Refer to Figure 4.28
- ▽ Unmonitored Stormwater Discharge Points direct to river (minor s/w discharges)

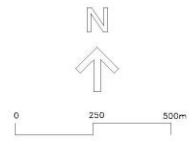


Figure 4.1
LOCATION OF DIRECT AQUEOUS DISCHARGES TO THE RIVER

NORSKE SKOG – BOYER
 ENVIRONMENTAL MANAGEMENT PLAN
 EMP March 05 Dwg 31-2194
 UPDATED 06/19