MT. WHALEBACK OPERATIONS AND THEIR EFFECTS ON THE ENVIRONMENT

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1. AIMS

The aim of this report is to study the existing environment in the immediate area of Mt. Whaleback mine at Newman, over a period of a year. This is the first report; a second one will be made in approximately one year for the purpose of comparison.

2. SCOPE

This study is restricted mainly to the immediate areas of the mine, but comments will be made on the surrounding countryside. The areas under study are—Western Whaleback to Western Ridge, North Whaleback, Eastern Whaleback, areas immediately south of the mine support buildings, Whaleback creek, sewerage run-off, Newman Township and Gingiana Pool. A map of the area is included with these areas marked on it.

3. GENERAL

Since I first came to Newman five years ago, I have had the opportunity to observe the wildlife in reasonably close detail. During this time, I have noticed an upsurge in the population of some species, and unfortunately, the decline of others. I do not have the information to determine whether this is part of a natural cycle or not, but undoubtedly the Department will have access to knowledge of this kind.

The increase of several species is definitely not the result of nature; amongst these are the Corvid and Feline (Domestic x Feral) species. These will be covered in further detail. Domestic mice and dogs are there but are not yet a problem.

On the actual mine, while wildlife does not exactly abound, it is not uncommon to see the occasional Dingo, and usually there are a few Wallabies to be seen. Sightings are made mostly at night and occasionally during the day, despite the constant roar of machinery and regular blasting operations. Indeed, the smaller birds of prey take advantage of the blasting, and, once a shot is fired, they are usually seen to be quartering the areas immediately adjacent to the blast. Presumably this is to find small lizards and rodents, which do abound on the hill, and have been frightened out of hiding by the noise and ground vibration.

4. DIRECTION

To simplify matters, all references to direction are made relative to Mt. Whaleback itself. As the hill runs roughly East to West, the end closest to the town will be designated as the Eastern end. The Western end is towards Western Ridge, and North is classified as the area on the opposite side of the hill from the mine support buildings. Therefore, South is on the same side as the buildings.

PART I
WEST WHALEBACK TO WESTERN RIDGE

This area lies in the direct path of the dust carried by the prevailing winds for most of the time. At certain times of the year, these winds carry the dust as they swing from North and East. It is a large plain covered with scrub and small gums. Occasionally the wind comes from the west and rarely from the South.

This area has never been noted for its abundance of wildlife, although most of the Wallabies and Dingoes seen on the hill come from this area. It must be assumed therefore, that these are migrant animals, but actually live only a few miles from the mine, and within sight and earshot of it. The reason for this supposition is that Western Ridge has an almost permanent supply of water in a small gorge. This appears to leak out of the surrounding rocks and it gathers in a small rock hole at the base of the gorge, in an area of almost total shadow. Compared to the immediate area of the mine, wildlife is plentiful in this area. This is not implying that the mine is driving the wildlife away, rather that the water is attracting it.

Trees and scrub, however, are being effected with a layer of dust but this is true of the bushes which line the roads in most parts of the North West. Small birds are present in this area, but do not abound. Kangaroos and Wallabies are seen regularly in this area, but not in any great number.

PART II
NORTH WHALEBACK

This area is mostly clear of dust, although traffic using the access road around the mine stirs it up. Nevertheless, dust is building up on the plants.

The wildlife in this area appears to consist of mainly small birds and the occasional bird of prey. Corvids are rarely seen in this area or the area previously mentioned. Corvids will be covered in a separate section.

Strangely enough, there is evidence to suggest that a colony of Brush Tailed Rock Wallabies are living on the Northern face of Whaleback. Unfortunately mining operations have prevented me from confirming this. However, at the first opportunity I will be applying for permission to make a close-up study of this area. Should they actually exist it may be further evidence of the adaptability of these animals inasmuch as they would be totally ignoring the noise going on around them. It is of course realised that the animals which have been sighted in this area could have wandered from Western Ridge as I have never found water in this area. Reptiles do exist in this area, but are not often seen.

This area is semi scrub covered plains, with several small hills.

PART III

EASTERN WHALEBACK

There is at present in this area some developmental work in progress. At one location in the area there is a water filling point. Observation of this point has produced some results, as the water leaking out has brought wildlife in at night and early evening.

Kangaroos, Wallabies and Dingoes have been sighted here, as well as the Brush Tailed Rock Wallaby. Birds have included Parrots, Pigeons, Finches and the Painted Finch. Rodents or reptiles have not been sighted but from the way that birds of prey regularly quarter the area, it would seem to indicate their presence.

PART IV

SOUTH WHALEBACK INCLUDING WHALEBACK CREEK

At one stage domestic cats were a problem in this area but they have since thinned out. They were allowed to exist within the mine support buildings to control the mice as there had been a population explosion amongst them. This was probably due to a suitable artificial environment having been created when the workshops were built, and an increase in the food supply due to crumbs and scraps of food from the messrooms being available to them.

The drop in the feline population is seemingly unexplainable, as they were pampered by the workmen some of whom brought food especially for them. Nevertheless, the decrease is a welcome one as these cats were beginning to spread out into the region of Whaleback Creek and play havoc with the birds nesting there. This has now ceased.

Birds have adapted very well to the industry here and several species are nesting amongst the machinery. Two of these are the Black Faced Wood Swallow and the Willie Wagtail.

A few hundred yards to the south is Whaleback Creek. This area is of interest not only because it is a natural watercourse which is normally dry, but it is now supplied with run-off water from the mine and contains a breeding colony of rabbits. This possibly could indicate an increase in the Dingo population, however, there is no evidence that this is so. I have made only a casual search for the rabbits during the time spent in this area, but have been unable to find any burrows. Indeed, the nature of the ground precludes the possibility of such, as it is mostly stone and shale. I would venture to suggest that they are living on the surface, but in the tangle of dead vegetation and washed down scrub that surrounds the base of most of the trees. In one case, a small group was found in amongst a tangle of boulders that had been dumped.

Water samples have been taken from there at different points, and the results will be included in an appendix to this report.

Wildlife abounds here and, in my opinion, is directly attributable to the presence of the mine. Corvids have nested within the past three years but, except for an occasional visit, appear to have deserted the area now.

Reptiles are present, particularly the large lizards. Snakes, which are present but not often seen, appear to enjoy the conditions.

PART V

NEWMAN TOWNSHIP

Without doubt, the existence of this town has had a tremendous effect on the wildlife. Most of this is good, but a few parts are bad.

Water is plentiful in town and this has resulted in an increase in insect and bird population. One instance is the Crimson Chat population which literally exploded this year. Rosellas and Galahs are plentiful and regularly fly over the town. This has had the unfortunate effect of increasing the number of caged birds. Most of these cages do not conform to specification, and are overcrowded. Should the Department think fit, the other Honorary Officers and I will adopt a get tough policy towards these people, as advising them does not seem to have had much effect, although some change has been noted.

Kangaroos are plentiful around town, as are most of the birds on the lists forwarded by Mr G. Godber and myself.

Crows are a problem, as they have found suitable scavenging among the dustbins and are unfortunately thriving. The existence of a stable on the outskirts of town seems to have been a factor in attracting birds as chaff, hay, corn and oats are plentiful around the horses.

The rubbish dump on the outskirts of town is where the crow population has built up quite dramatically. At times they descend on it like a black seething mass. There is plentiful scavenging there for them. This area is also very bad for domestic cats gone wild; some have just wandered off from their homes, but mostly they have been abandoned when their owners have left town. These cats, like the rabbits previously mentioned, are nocturnal and are very rarely seen during the day. A systematic control of these cats by shooting has had good results in surrounding areas, but the tip is too close to town to do this here. I would suggest a string of box traps, as any others could possibly endanger humans.

To control the crows, we are endeavouring to locate their nesting sites, and will destroy them as they return to roost until their numbers reach a lower level. The reasons for this action will be explained in the general comments.

PART VI

SEWERAGE RUN-OFF

This is an ideal place which was created by taking the water from the sewerage farm and directing it into a natural creek bed. The area is relatively unknown to most of the townspeople, although Geologists and a few trail riders know of its existence. The stream gradually widens out into a series of small pools and eventually stops. It is believed to soak into the ground at this point. Possibly it continues underground, and maybe reaches a size where the evaporation rate equals the rate of flow. The water itself is full of algae, possibly due to it being enriched from the sewerage. As it is mostly shaded, it is not considered that the process of photosynthesis alone would produce this effect. Most birds live and nest here.

On a recent visit, I took Wildlife Officer Mr R. Smith of Karratha to view the area and we discovered a colony of Red Capped Robins. This surprised me, as I did not believe them to be a gregarious bird, but a very territorial one. The Splendid Wren is another bird that abounds here. It is of interest to note that the first sightings of the Crimson Chat were made in this location. Other bird life has included Egrets, Herons, Ibis, several varieties of duck (including the Pink Eared Duck) and on one occasion about four years ago, two Freckled Ducks. The Little Hoary Grebe and Black Swan have also been seen here. Parrots, Honeyeaters and Goshawk as well as pigeon are there. In short, the place is an oasis created by the fact that the town exists.

PART VII

GINGIANA POOL

This was the subject of a pilot experiment by the Conservation Group, the Newman Rangers. These people (who describe themselves as weekend garbos) have done valuable work around Newman by clearing up the rubbish left by man from around the water holes in the vicinity. I say that this was a pilot experiment inasmuch as this one pool was singled out from the others to be developed as an amenity that the townspeople could enjoy and perhaps they would leave the other pools alone as Gingiana is only four or five miles from town. Unfortunately, this experiment was a failure. Water was piped from an existing well across the road by courtesy of the Lions Club in an attempt to stabilise the water in the pool all year round. Unfortunately, the volume of water produced does not keep pace with evaporation. It is now realised that doing this could interfere with a natural cycle, and part of the pool was allowed to dry up naturally.

Rubbish bins were placed around the pool and emptied regularly. This did not prevent people from throwing rubbish around and from breaking glass there. In one instance, rubbish was piled around an empty bin. Barbecues were erected and achieved some success.

As a whole however, the experiment was a failure. Although birds are plentiful there the species of wading birds that inhabit the sewerage run-off avoid the place for most of the time.

Specimens of Steindachers Tortoise have been found there and the area is watched as young children have been catching and selling them. In one case, a boy of nine was the culprit. A word in his parents' ear by P. Durrant and myself stopped this practise.

Galahs, Rosellas and Honeyeaters frequent the area, as do pigeons, reptiles, rodents etc. The tracks of what appear to be small Marsupials have also been found.

There are several more areas like this around Newman which, in my opinion, would produce good results if a full time study were to be made.

ANALYSIS OF WATER SAMPLES TAKEN FROM WHALEBACK CREEK

Sample No. 1 .... Railway loop bridge 31: 1500 hrs 9/11/76.
Total dissolved solids—338 ppm.
No Coliform detected.

Sample No. 2 .... Opposite the B.P. depot: 1505 hrs 9/11/76.
Total dissolved solids—490 ppm.
Total Coliform in excess of 1 000 colonies per 100 ml of sample has been detected.

Sample No. 3 .... Opposite the Security hut: 1515 hrs 9/11/76
Total dissolved solids—628 ppm.
No Coliform detected.

Sample No. 4 .... Unable to analyse this sample as it is nearly all oil.

Sample No. 5 .... Eastern limit of the water: 1530 hrs 9/11/76.
Total dissolved solids—1 298 ppm.
Total Coliform well in excess of 1 000 colonies per 100 ml of sample has been detected.

COMMENTS

In the words of the analyst, this water is not potable, even for animals. It can be seen from this information that the amount of dissolved solids increases towards the eastern limit of the water.

The oil that pollutes this water was moving east, even as I took the samples, polluting as it went. Now, as the evaporation rate is increasing, deposits of sludge of this oil are being deposited around the creek. An increasing number of birds are being brought in, covered with oil. Most of them are found too late for treatment to be effected. The only one that has been saved so far, is an immature black swan.

It is no use trying detergent, as the volume of water is insufficient for it to be effective. The only thing to hope for, is a heavy rainfall which will flush the creek out.

As there is very little that can be done about this spill, the obvious solution now, is to try to prevent a re-occurence of the incident. To this end, an oil separation filter unit is to be installed to process any run-off into the creek.

A large growth of algae was noted in all samples.

GENERAL COMMENTS

I am going to do something now that I would never do as a rule; That is, make a prediction that is not based on fact. I believe that the next report will indicate that mining operations as such will not have a bad effect on the environment. Any bad effects will come indirectly from the mining.

Animals, birds and reptiles have adapted themselves well to the presence of the noise etc. A blast nowadays only warrants a raising of the head from nearby kangaroos. There is a direct benefit to some species by the constant water that is now present. Indeed, the Mt. Newman Mining Co. has shown its concern for the countryside by establishing an Environmental Department and implementing a program of re-planting in the mine area and on the hill itself. Experiments are constantly being carried out in this field.

On the other hand, Whaleback Creek is definitely polluted. Only last week a Black Swan was taken off there covered with oil; it subsequently died. Upon examination, it was found to be internally polluted with oil. This is the third Swan that has been caught. One had two broken wings that had healed and deformed to such an extent that they interfered with the bird's progress on water, and so it was destroyed. This bird is thought to have collided with the overhead power-lines. The other had one wing broken. This was cared for and cleaned up as it had slight oil pollution, and released on the sewerage run-off. It still is there and appears to be thriving.

My main concern however, is one that is a little difficult to put into words and is an indirect effect of the mine. I think perhaps it is best summed up in one word—MAN. People are now moving out into the bush more. Consequently, the effect is telling on the wildlife. Kangaroos have, in general, moved further out into the scrub, although they still come close to town on occasions. At one stage they used to graze in the gardens, but not now. Horse riding is gaining in popularity and will add to the pressures that man puts on the animals. There is no evidence that this has started yet, but the future will tell.

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Trailbike riders definitely are having an effect. This has been observed in several areas and is on the increase. The largest problem exists with illegal shooters. Despite constant patrols, these people still persist, and it is common to see carcases in the bush. Man's environment has proved to the liking of some species, especially vermin such as crows, cats, dogs and rodents.

The crows have had a telling effect amongst the eggs and nestlings on the sewerage run-off. At one stage, the Red Capped Robins almost vanished from the area and I suspect the crows of having a hand in this. Without a doubt, they were assisted by domestic cats gone wild. The remains of several birds have been found there, all partially eaten. Several cats have been sighted in the area, and some of them have grown to an exceptionally large size. Here, as at Gingiana Pool, their presence is telling. Various methods of removing cats from the area have been discussed with Wildlife Officer R. Smith of Karratha, and a program will commence shortly, after discussions with Mt. Newman, should permission be forthcoming.

I must reiterate, that a full time study carried out in the Newman area would in my belief, turn up some surprising facts and information.