

CHAPTER VIII

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The major commitment of resources is the mining and consumption of 724.3 million tons of coal over the 40 to 74-year life of the mine. This loss represents about 5.8 percent of the economically strippable reserves of the Eastern Powder River Coal Basin.

Use of an indeterminable amount of sand and gravel and clinker for aggregate in the construction of mine facilities, railroad spur, and access road will occur. Clinker, sand and gravel deposits mined with the overburden and mixed with other spoil will be irretrievably lost if not selectively removed.

The only ground water aquifers that will be irreversibly committed are those aquifers that will be physically removed during mining. Adjacent parts of these aquifers will be affected during mining operations but water levels are expected to return to normal after mine dewatering stops. The chemical quality of water in the aquifers will not be changed.

The extraction of coal and reclamation of disturbed areas will require the use of electrical power, lubricants, liquid fuels including diesel fuel and gasoline, ammonium nitrate explosives, and structural materials for equipment construction and repair and surface buildings. Chemicals and materials used in mining and reclamation would also be lost for other uses.

Large amounts of diesel fuel will be used in transporting the coal via rail line. By 1980 the consumption of fuel just within the study area will amount to 4.4 million gallons per year. This fuel will be consumed and unavailable for future use.

Loss of life will occur both in the mining operations and associated with increased vehicular and train traffic. Based on fatal accident rates experienced in the strip mining industry during 1972, one employee will suffer a fatal accident for every 14.3 million tons of coal produced. Disabling injuries will occur at the rate of 9.24 per million man hours worked. Therefore, during the life of the mine an estimated 51 people will lose their lives. This will be an irretrievable commitment of human resources.

Any destruction of archeological and paleontological sites will be an irreversible commitment of resources, if not properly surveyed, excavated and recorded.

It is doubtful that total reestablishment of the complex native plant community is possible on disturbed areas of the mined area. Strip mining and associated activities will eliminate a portion of this life-support community which is the major irreversible impact to wildlife in the area.

Wildlife resources that may be irretrievably lost include individual animals and habitats that are destroyed. Animals and plants that would have reproduced in the affected habitats during the life of the mining operation may also be irretrievably lost. Most wildlife losses may be reversible if the species and habitat are not impacted to the point that their ability to reproduce is seriously impaired.

Full productive capacity of the land may not be possible on areas severely disrupted by strip mining. Any reduction in productive capacity of the revegetated land over the previous capacity has to be considered an irretrievable commitment of resources.

The annual forage production which the area could have produced will be lost during the time that mining takes place. Production could be

lost on 300 to 500 acres annually. This increment of production lost is an irretrievable commitment of the livestock forage.