

CHAPTER VIII

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The major commitment of resources is the mining and consumption of 677.3 million tons of coal over the 57-year life of the mine. This loss represents about 5.1 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 moved with other spoil will be irretrievably lost.

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 construction and repair of 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 1985 the consumption of fuel just on the spur line will amount to 912 thousand 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 45 people will lose their lives. This will be an irretrievable commitment of human resources.

Any destruction of archeological or paleontological values will be an irreversible loss of resources to the extent values are not recorded and salvaged, as appropriate.

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.

It is doubtful that full production can ever be restored to areas severely disrupted by strip mining. The assumption has been made that even upon revegetation, productive capacity will be reduced to 50 percent of previous capacity. Unless further research indicates technology that would ameliorate loss, this has to be considered an irreversible 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 irreversible commitment of the livestock forage.