

## CHAPTER VIII

### IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The major commitment of resources is the mining and consumption of 165.4 million tons of coal over the 38-year life of the mine. This loss represents about 1.3 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 power plant facilities 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.

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 if the 1972 fatality rate persisted an estimated 12 people would lose their lives. This would 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, 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.

Full productive capacity of the land may not be possible on land severely disrupted by strip mining. Any reduction in productive capacity of the revegetated land over the previous capacity has to be considered an irretrievable loss 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 100 to 150 acres annually. This increment of production lost is an irreversible commitment of the livestock forage.

The productive area lost to the projected 900 acres of lakes probably should be considered an irretrievable commitment of land resources to another use.