

## XX. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The irreversible and irretrievable resources committed are those natural and human resources that will be consumed, converted or made unavailable for future use.

### A. Oil and Gas Drilling and Development

- The production of natural gas and oil constitutes an irretrievable commitment of nonrenewable natural resources.
- Other resources irreversibly committed include the materials used and consumed during the drilling and completion of an oil or gas well which cannot be recovered or recycled with present technology. These resources include petroleum derived fuels and lubricating oils, materials used for cement, casing, drilling, completion and stimulation fluids and any worn rig parts or equipment such as drill bits.
- Death and/or permanent disability could occur in the event of a blowout or rig fire and should this occur, it would be an irreversible loss of human resources.
- An irretrievable loss of biological resources could occur in the event of a large oil spill in a sensitive habitat.

### B. Enhanced Oil Recovery

- Enhanced oil recovery furthers the production of oil which is a nonrenewable natural resource.
- An irreversible commitment of equipment and materials is made for injection and water treatment facilities.

### C. Solution Salt Mining

- The development and extraction of rock salt is an irretrievable commitment of a nonrenewable natural resource.
- The irretrievable loss of biological resources could occur in the event of a large brine spill in a sensitive habitat.

- The loss of land for many uses may occur in the event of subsidence.

D. Underground Gas Storage

- Recharging a depleted gas reservoir may result in the migration of gas outside of the reservoir which may be an irretrievable loss of natural gas resources.

- Due to the permanent nature of gas storage reservoirs, the irretrievable loss of some flora and fauna habitats occurs.

E. Geothermal

- An irreversible commitment of equipment and materials is made for drilling, operating, plugging and abandoning geothermal wells.

F. Stratigraphic Test Wells

- An irreversible commitment of minor amounts of equipment and materials is made for drilling, testing, plugging and abandoning stratigraphic test wells.

G. Brine Disposal Wells

- An irreversible commitment of equipment and materials is made for drilling, operating, plugging and abandoning brine disposal wells.