

## XIX. UNAVOIDABLE ADVERSE IMPACTS

Unavoidable adverse impacts are those adverse environmental effects that can be expected to occur regardless of mitigation measures. Additionally, as oil, gas, solution salt mining and gas storage activity increases, so does the potential for the probability of adverse environmental impacts.

Though the potential for severe negative impacts from any one site is low, when all activities in the State are considered together, the potential for negative impacts on water quality, land use, endangered species and sensitive habitats increases significantly.

### A. Oil and Gas Drilling and Development

- Short term degradation of surface water quality from suspended solids will occur during access road construction and pipeline installation at any stream crossings.
- Temporary accelerated erosion is expected in the immediate vicinity of the drill site and access road.
- Pipeline construction will disturb a narrow corridor of land during construction.
- Operating drill rigs could temporarily disrupt the scenic vista for some people living and working in the area. Other people will perceive the drilling rigs as visually interesting.
- Longer term visual impacts from changes in landscape and installation of production facilities will occur if the well is economically viable.
- The temporary loss of land and associated loss of wildlife habitat will occur.
- Possible loss of some individual animals and localized declines in abundance or distribution of some plants and animals may occur.
- Temporary land-use conflicts or impacts resulting from the acreage used for the drill site, access road, gathering line and production facilities will occur.

- Short term negative noise impacts may be experienced for 5 to 10 days by people living in close proximity to the drill site.
- Short term minor adverse air quality impacts resulting from the dust and diesel exhaust fumes generated at the drill site can not be totally mitigated.
- Some minor adverse impacts will continue throughout the life of a well, such as atmospheric emissions, noise and the potential for operational accidents.
- Minor increases in trace metals and hydrocarbons near drilling rigs may occur in the immediate vicinity.
- The potential adverse impacts and conflicts associated with the disposal of drilling and production solid and liquid wastes cannot be entirely eliminated.

B. Enhanced Oil Recovery

- Unavoidable land use impacts are greater because of the need for injection and water treatment surface facilities.
- Some increase in negative aesthetics including visual disturbances, noise and odors associated with the injection and water treatment facilities is unavoidable.

C. Solution Salt Mining

- Drilling impacts associated with oil and gas wells also apply to solution mining wells.
- When larger quantities of salt are produced from an underground solution salt mining operation, the potential for subsidence exists, even with careful planning, in areas with thin overlying bedrock.
- Surface waters and the associated aquatic life may be temporarily adversely affected when large quantities of water are removed for solution salt mining.
- The potential for brine leaks from associated transport pipes, storage tanks

and wells exist particularly when corrosion inhibiting measures are not taken.

D. Underground Gas Storage

- Some of the gas storage fields have been in use for several decades, so long term land use impacts are greater.
- Long term localized increase in noise and atmospheric emissions due to compressor operations will occur.
- Increased noise, visual disturbance and atmospheric emissions will occur from the heavy traffic during the removal of mined cavern debris, the stockpiling of cavern debris and the general servicing needed for a storage cavern site.

E. Geothermal

- Impacts of drilling, completing and abandoning geothermal wells generally resemble those of oil and gas wells.
- The land use impacts may be slightly higher because of associated heat recovery facilities.
- New York State has relatively low geothermal potential and significant geothermal development is not anticipated.

F. Stratigraphic

- Impacts of stratigraphic test wells are relatively minor because they are short term.
- These wells are drilled for information, not production of potential pollutants like oil or gas, and the well drill site and borehole are usually much smaller.
- Land use impacts are also much lower than those of oil and gas wells because no surface production/injection facilities are needed and the small area disturbed can be reclaimed as soon as the tests are completed and the well is abandoned.

G. Brine Disposal

- Impacts of drilling, completing and plugging brine disposal wells (Class IID) are very similar to impacts of oil, gas and injection wells used for oil recovery (Class IIR).
- The land use impacts may be slightly higher because of the required support facilities such as brine loading and storage tanks and the associated surface containment and safety equipment which are required under State guidelines.