

The following section supplements the analysis found in the Draft EIS Chapter Three, [Section 3.19 - Access and Travel Management](#) on page 3.381, “Impacts Related to New Oil and Gas Development Leasing”.

DIRECT AND INDIRECT IMPACTS

GSGP development would require the construction of new roads and reconstruction of existing roads. The need for is a function of the estimated number of wells projected to be developed. For each alternative, estimated road needs during exploration and development are presented in the Introduction to Chapter Three, Table S-3.0.1. The projected GSGP’s development could measurably increase in road usage requiring roads be constructed or reconstructed to safely accommodate existing and proposed uses. As already reviewed in preceding sections, potential impacts from oil and gas roads include increased storm and water runoff, sedimentation, erosion, wildlife disturbance, noise, diminished visual quality and increased traffic on state and county collector and arterial roads.

Arterial and collector access roads, in general, are existing USFS/BLM roads that are currently utilized for a variety of uses including recreation, private land access and other USFS/BLM management. Projected oil and gas development of future leases in the GSGP could require an estimated network of approximately 200 miles of collocated access roads and pipelines to serve the well pads on USFS/BLM lands. Some existing improved and unimproved roads could also require reconstruction. All new oil and gas well access roads would be closed to the public and monitored. Upon well abandonment, all roads constructed specifically for the oil and gas wells would be removed, excepting those roads that the USFS/BLM retain for administrative purposes.

The amount of oil and gas related traffic on roads would vary between well construction phase and routine maintenance over the life of the well. Approximate 635 vehicle round trips consisting of heavy, medium and light trucks are assumed to be needed for access road construction, drilling and for well completion and testing. Heavy truck traffic could result in inordinate wear to county, USFS/BLM roads. A reasonable transportation projection assumes that active oil and gas wells and disposal or injection wells could continue to require daily maintenance trips and a workover on average every two to four years (six trips per workover). Consequently, 365 trips per well is assumed annually for maintenance, on average with an additional six trips over 1 to 2 days for an annual workover.

The maximum well development and maintenance traffic that would be added to existing traffic on roads in Montezuma, Dolores and San Miguel Counties has not been projected as a percentage of total traffic levels. But given the projected 550 new GSGP and conventional well sites developed on future federal leases within the three counties over the next 15-years, the volume of heavy and light truck traffic on county roads could increase measurably.

Alternative Comparison: Alternative A would result in the highest level of road construction, followed by Alternatives D, B and C. Impacts from an expanded transportation system and increased traffic to safety and other resources and uses of the public lands would follow the same order of magnitude from highest to lowest. Impacts would be controlled by Draft LMP standards, guidelines and additional referenced guidance such as engineering and traffic control requirements that address road construction, maintenance, use, and abandonment. Roads proposed for construction or reconstruction would have to be in compliance with the road density guidelines of the Draft LMP, which could require obliteration of other roads within the area, in order to not exceed density guidelines and to assist in reducing the overall density within an area.

The No Lease Alternative would not make available any new lands for lease and therefore there would be no direct or indirect impacts. Under the No Lease Alternative, future development could occur on existing leases only, and cumulatively could reduce the potential development and associated road needs by approximately 24%, resulting in less impact than the action alternatives.

CUMULATIVE IMPACTS

The cumulative effects boundary for this analysis is the Paradox Basin of the planning area which includes the GSGP, as well as the adjacent area with conventional and gas shale development, in Montezuma, Dolores and San Miguel counties, and includes the potential impacts from projected oil and gas development on leased and unleased federal lands, and private and state leases. The three counties that would be most directly impacted by projected development of the GSGP area include Montezuma, Dolores, and San Miguel counties. The three counties are expected to experience low to moderate increases in traffic reflecting a projected increase in population of nearly 20% by 2020. An increase in population growth simultaneous with projected oil and gas development could contribute to increased road congestion on road systems within the potentially impacted counties.

In addition to the potential miles of road described above for unleased lands, there are also projections for more development and roads on lands already leased. An additional 189 miles of road could result from future development on lands currently held under lease on federal mineral estate (112 miles from future gas shale development, and approximately 77 miles from conventional gas development). Furthermore, approximately 265 additional miles are projected from development on private and state leases. Cumulatively, a total of 885 miles of road could result throughout the area from conventional and shale gas development on federal leases (including road miles associated with existing wells and projections for federal leased and unleased lands, and from existing development and potential development on private and state lands).

Other uses of the forest such timber harvest, livestock grazing and recreation are all activities that could contribute along with oil and gas development to traffic on the federal, state, and county transportation systems. Community expansion and recreational use of the public lands are projected to moderately increase over the next 15 to 20 years. These trends in addition to projected oil and gas development could result in increased traffic congestion, wear and tear on roads, the need for more frequent maintenance and an increased potential for traffic accidents.