

Potential environmental problems with fracking

	Potential problems	Avoidance strategies		
		Prospective	Operational	Retrospective
1	Traffic and noise	Planning	Law enforcement	
2	Modification of landscape	Regulatory diligence	Environmental monitoring	
3	Fractures propagate upward to potable water; fracking fluids, natural brines, or petroleum move upward into potable water.	Regulatory diligence during permitting stage with regard to depth of fracking	Monitoring of pressure and volume of fluids; microseismic observation	Tort claims
4	Fractures propagate to natural fault(s) or fracture(s); fracking fluids, natural brines, or petroleum move upward into potable water.	Regulatory diligence during permitting stage with regard to geological environment	Monitoring of pressure and volume of fluids; microseismic observation	Tort claims
5	Earthquakes (structures fall down, in some cases falling on people)			Tort claims
6	Failure of cement job; fracking fluids, natural brines, or petroleum move into potable water	Regulatory diligence during permitting stage with regard to well construction	Testing of cement; monitoring of pressure and volume of fluids	Tort claims
	Improper disposal of fracking fluids:	Regulatory diligence during permitting stage with regard to fluid disposal		Tort claims
7a	Dumping on landscape and/or into streams		Law enforcement	
7b	Delivery to local municipal water treatment systems/plants			
7c	Subsurface disposal leading to earthquakes			
7d	Subsurface disposal into potable water			