

## Project 7 - Construction of motorways, express roads and lines for long-distance railway traffic and of airports

Comments:

CATEGORY	FACTOR	COMMENTS
AIR	ammonia (NH <sub>3</sub> )	hazardous substance, human health, aquatic life, water quality, reference <a href="#">1</a>
	carbon monoxide (CO)	greenhouse gas, reference <a href="#">1</a>
	carbon dioxide (CO <sub>2</sub> )	
	heavy metals:	reference <a href="#">2</a>
	lead (Pb)	human health, flora, fauna, aquatic life, soil
	cadmium (Cd)	
	copper (Cu)	
	zinc (Zn)	
	methane (CH <sub>4</sub> )	greenhouse gas, volatile, human health, reference <a href="#">1</a>
	non-methane volatile organic compounds (NMVOC)	greenhouse gases, volatile, flora, fauna, human health, reference <a href="#">1</a>
	oxides of nitrogen (NO <sub>x</sub> ) / N <sub>x</sub> O	acid rain, photooxidants, ozone, acidification of soils, flora, human health, reference <a href="#">1</a>
	oxides of sulphur (SO <sub>x</sub> )	
	organohalogen compounds	reference <a href="#">5</a>
	polyaromatic hydrocarbons (PAH)	carcinogen, priority toxic pollutant, human health, flora, fauna, aquatic life
	persistent organic pollutants	reference <a href="#">4</a>
	dioxins	incomplete combustion, possible carcinogen, priority toxic pollutant, fauna, human health, soil, aquatic life
	furans	
	halogenated scavengers	leaded gasoline
	other hazardous substances	human health, flora, fauna, water
	particle emissions	climate change, human health, flora
odour	human health	
noise		
vibration		
WATER	pesticides	water quality, aquatic life
	oil products	aquatic flora/fauna, soil
	herbicides	
	nutrients	
	anti-skid chemicals	
	de-icing agents	
	other hazardous substances	human health, aquatic life, water quality
CLIMATE	changes in ambient air temperature	
	particle emissions	
	greenhouse gas emissions	CO <sub>2</sub> , CO <sub>2</sub> , NH <sub>3</sub> , CH <sub>4</sub> , NO <sub>x</sub> , N <sub>x</sub> O, SO <sub>x</sub>
FLORA	changes in natural vegetation	location, emissions
	disturbance of plant habitat	
	disturbance of natural vegetation	
	changes in species population	
	impact on protected areas	
FAUNA	migratory changes - birds	location
	migratory changes - mammals	
	disturbance of wildlife habitat	
	impact on threatened species	location, emissions
	changes in species population	
	impact on threatened area	
	changes in mammal food web	

<b>CATEGORY</b>	<b>FACTOR</b>	<b>COMMENTS</b>
<b>SOIL</b>	soil acidification	salts, de-icing agents
	soil contamination	heavy metals, other pollutants
	erosion	location, route selection
<b>LANDSCAPE</b>	land use changes	
	visual aspects	
	physical composition	
	impact on sensitive lands	
<b>HISTORICAL MONUMENTS</b>	archaeological changes	construction
	palaeontological changes	
	changes to historical sites	acid rain pollution
<b>HUMAN HEALTH &amp; SAFETY</b>	changes in ambient noise levels	
	increase risk of accidents	
	changes in disease incidence	
	risk of spills	
	risk of surface water contamination	
	risk of ground water contamination	
<b>CULTURAL HERITAGE</b>	cultural changes	
	land use changes	
	way of life	
<b>SOCIO-ECONOMIC</b>	changes to well being of life	
	changes to quality of life	
	quality of recreational facilities	
	quantity of recreational facilities	
	present use of natural resources	
	potential use of natural resources	
	employment opportunity	
	economic development - transboundary	

References

1. Proceedings of the EMEP Workshop on Emission Inventory Techniques, Regensburg, Germany, 2-5 July, 1991, EMEP/CCC-Report 1/91
2. Economic Commission for Europe Convention of Long-range Transboundary Air Pollution, Task Force on Heavy Metal Emissions, June 1994
3. Economic Commission for Europe, Convention on the Transboundary Effects of Industrial Accidents
4. Economic Commission for Europe, State of Knowledge Report of the UN ECE Task Force on Persistent Organic Pollutants
5. Recommendations to ECE Governments on the Prevention of Water Pollution from Hazardous Substances