

# Environmental issues categorized by type, media and pathway

Hammond et al. "Community Environmental Issues: A Summary and Analysis of Local and Federal Government Perspectives," DRAFT, In review.

Environmental Issues	Affected or Influencing Media						Exposure Pathways				Health Endpoint(s) of Concern	Chemical(s) of Concern
	AIR	INDR	SOIL	WATR	FOOD	OTH	IH	IG	DT	DR		
SOURCES OF EXPOSURE												
Airport	*		*				*				hearing loss, asthma	VOCS, PM
Air Quality	*						*				asthma, COPD, heart disease	PM, O3
Air Quality - Mobile Source/Near Road Pollution	*						*				asthma, respiratory disorders	diesel exhaust, PM, HAPs
Air Quality - Point Source Emissions	*						*				asthma, respiratory disorders	metals, SVOCs, VOCs
Autobody Shops / Recyclers			*	*			*				asthma, neurological disorders	VOCS, metals
Brownfields			*	*				*		*	cancer	metals, PCBs
Contaminated Land			*	*	*			*		*	cancer	metals
Contaminated Sludge			*	*				*		*	cancer, immune disorders	PCBs, plutonium, etc.
Drinking Water				*	*			*	*	*	cancer, liver/kidney disorders	pathogens, metals
Fish Consumption					*			*	*	*	neurological impairment	mercury
Ground-water contamination				*	*			*	*	*	cancer, liver/kidney disorders	nitrates, metals
Hazardous Waste / Pharmaceuticals			*	*				*		*	cancer	medications, acids, mercury
Hazardous Waste Sites - Active			*	*				*		*	cancer	refrigerants, chlorinated solvents, etc.
Hazardous Waste Sites - Inactive			*	*				*		*	cancer	refrigerants, chlorinated solvents, etc.
Hazardous Waste Sites - Abandoned/Superfund			*	*	*			*		*	cancer	metals, PCBs, etc.
Indoor Air Quality	*	*					*				asthma, allergies, cancer	radon, ETS, PM, VOCs
Indoor Pollution		*					*			*	asthma, cancer	lead, bioaerosols, asbestos
Indoor Vapor Intrusion		*					*			*	asthma, allergic reactions	VOCS, PM
Industrial Solid Waste Sites			*	*				*		*	cancer	metals, PAHs, pesticides, etc.
Methamphetamine Labs		*	*	*			*			*	respiratory disorders, nausea	VOCS, metals, acids, etc.
Mining Waste			*	*	*			*		*	cancer	radiation, metals, PM, etc.
New Toxic Chemicals	*	*	*	*		*	*	*		*	unknown	unknown
Nonhazardous Waste Sites - Industrial			*	*				*		*	cancer	PAHs, acids, etc.
Nonhazardous Waste Sites - Municipal			*	*				*		*	cancer	metals, PAHs, oils, etc.
Outdoor Air Quality	*						*				asthma, COPD, heart disease	PM, ozone, HAPs, etc.
Point sources - major except landfills	*			*			*				cancer, respiratory disorders	metals, PM, VOCs
Ports and Marine Terminals	*			*			*				asthma, cancer	diesel exhaust, PM, metals, etc.
Printers	*						*				asthma, allergic reactions	VOCS
School Buses (Retrofits)	*						*				asthma, allergic reactions	diesel exhaust, PM
Schools/Hazardous Waste	*	*		*			*			*	cancer	acids, caustic agents, etc.
Soil - unlined sumps			*	*				*	*	*	cancer, liver/kidney disorders	metals, PAHs, acids, etc.
Super-emitting cars	*						*				asthma, COPD	CO, NO2, PM
Uranium Mines (well water)			*	*		*		*	*	*	cancer	radiation
Water Quality - Wastewater / Sewage				*			*	*	*	*	cancer, liver/kidney disorders	pathogens, metals
Water Quality - Stormwater Runoff				*			*	*	*	*	cancer, liver/kidney disorders	petroleum, pesticides, nitrates, etc.
POLLUTANTS												
Ambient Air Pollutants	*		*		*	*	*	*	*	*	asthma, cancer	PM, VOCs
Arsenic in Soil			*	*	*	*		*	*	*	cancer	metals
Asbestos	*	*	*	*	*	*	*	*	*	*	mesothelioma	-
Coal Dust	*						*				pneumoconiosis	sulfur
Creosote	*						*	*	*	*	chemical burns, cancer	-
Criteria Air Pollutants	*						*				asthma, cancer	PM, ozone, lead, CO, NOx, SO2
Diesel Exhaust	*						*				asthma, cancer	PM, SO2, CO, CO2, NOx
Dioxins	*		*	*	*		*		*	*	cancer, skin lesions	2,3,7,8-TCDD, etc.
Dust From Construction Sites	*			*	*		*	*	*	*	silicosis, lung cancer	silica, PM, metals
e. coli at beaches			*	*	*		*	*	*	*	hemolytic uremic syndrome	-
Environmental Tobacco Smoke	*	*					*				lung cancer, asthma	benzene, acetone, PM
Fly Ash	*	*	*	*	*		*	*	*	*	cancer	silicon, aluminum and iron oxides
Hazardous /Toxic Air Pollutants	*	*					*				cancer	benzene, cadmium, chromium VI, etc.
Integrated Pest Management/Pesticides		*	*	*	*		*	*	*	*	cancer, birth defects	organophosphates, methyl bromide, etc.
Lead	*	*	*	*	*		*	*	*	*	neurological, nervous system	-
Manganese (industrial emissions)	*	*	*	*	*		*				nervous system damage	-
Mercury	*	*	*	*	*	*	*				neurological impairment	-
Mold	*	*	*	*	*		*				allergic reactions, asthma	Stachybotrys chartarum, Aspergillus, etc.
Municipal Solid Waste Sites			*	*	*			*		*	respiratory disease, cancer	methane, dichlorobenzenes, VOCs
Nail Care Products/Nail Care Salons							*				neurobehavioral impairment	toluene, formaldehyde, etc.
Particulate Matter (Fine)	*						*				asthma, COPD, etc.	diesel PM, lead, carbon
Pathogens in Water			*	*	*	*	*	*	*	*	giardiasis, cryptosporidiosis	Giardia, Cryptosporidium, etc.
Pesticide Residue on Foods			*	*	*	*	*	*	*	*	unknown	organophosphates, methyl bromide, etc.
PPCBs in Water			*	*	*	*	*	*	*	*	unknown	antibiotics, steroids, hormones, etc.
Radiation (except indoor radon)				*	*	*	*			*	cancer	depleted uranium, radioactive isotopes, etc.
Radon	*	*					*	*			lung cancer	-
Ultraviolet radiation/ozone depletion				*	*		*			*	melanomas	-
HEALTH ENDPOINTS												
Asthma	*	*					*	*	*	*	-	PM, bioaerosols
Cancer	*	*	*	*	*	*	*	*	*	*	-	perchloroethylene, ETS, radiation, etc.
Children's Health	*	*	*	*	*	*	*	*	*	*	asthma, obesity	lead, BPA, diesel exhaust, PM, etc.
Diabetes	*			*	*	*	*	*	*	*	heart disease, stroke	PM, persistent organic pollutants
Environmentally Related Diseases	*	*	*	*	*	*	*	*	*	*	asthma, cancer	PM, lead, UV, asbestos, etc.
Infant Mortality	*	*		*	*	*	*	*	*	*	-	PM, NO2, ozone, etc.
Low Birth Weight Infants	*	*		*	*	*	*	*	*	*	-	PCBs, NO2, CO, PM, etc.
Mental/Neurophysiological Health	*	*		*	*	*	*	*	*	*	IQ deficits, Alzheimer's disease	lead, PCBs, dioxins
Obesity	*	*		*	*	*	*	*	*	*	heart disease, stroke	pesticides
Vector-borne Diseases (WNV)	*	*	*	*	*	*	*	*	*	*	encephalitis, meningitis	-
Worker Health	*	*	*	*	*	*	*	*	*	*	cancer, neurological disorders	pesticides, metals, PCBs
ACTIVITY-RELATED EXPOSURES												
Accidental Releases - Oil Spills			*	*			*	*	*	*	dermatitis, skin cancer	petroleum oils, metals
Accidental Releases - Toxics	*		*	*			*	*	*	*	cancer	benzene, phenols, cresols
Agriculture	*		*	*			*	*	*	*	nerve disorders, cancer, etc.	pesticides, herbicides, insecticides
Burning	*						*	*	*	*	asthma, respiratory diseases	PM, phthalates, etc.
Consumer Exposure to Chemicals		*		*	*		*	*	*	*	cancer	insecticides, caustic agents
Direct Point Source Discharges to Surface Water			*	*			*	*	*	*	cancer, liver/kidney damage	metals, PAHs, acids, etc.
Dredging/PCBs	*	*	*	*			*	*	*	*	cancer, neurological disorders	PCBs
Healthy Homes (Cleaning Products, Waste, Allergens)		*					*	*	*	*	asthma, respiratory diseases	ammonia, chlorine, etc.
Housing/Property Maintenance					*		*	*	*	*	asthma, cancer	asbestos, lead, mold
Indirect, Point Source Discharges to Surface Water				*			*	*	*	*	cancer, liver/kidney damage	metals, PAHs, acids, etc.
Industrial Waste-Water Discharges to Surface Waters				*			*	*	*	*	cancer, liver/kidney damage	metals, PAHs, acids, etc.
Light Pollution		*			*		*	*	*	*	insomnia, depression, cancer	-
Municipal Waste-Water Discharges to Surface Waters				*			*	*	*	*	cancer, liver/kidney damage	metals, PAHs, acids, etc.
Nonpoint Source Discharge to Surface Water				*			*	*	*	*	cancer, liver/kidney damage	nitrogen, phosphorus, pesticides, etc.
Odor and Noise Pollution	*	*		*	*	*	*	*	*	*	hearing loss, depression	hydrogen sulfide
Pesticide Application	*	*	*	*	*		*	*	*	*	nerve disorders, cancer, etc.	pesticides, herbicides, insecticides
Recreational Water Quality			*	*	*	*	*	*	*	*	dermatitis	e.coli, mercury, etc.
Storage Tank Releases			*	*	*		*	*	*	*	cancer	metals, petroleum, pesticides, etc.
Worker Exposure to Chemicals (Industry & Agriculture)	*	*	*	*	*		*	*	*	*	cancer, neurological disorders	pesticides, metals, asbestos, etc.
OTHER												
Energy Conservation				*	*	*	*	*	*	*	-	-
Land Use / Redevelopment/ Smart Growth				*	*	*	*	*	*	*	-	-
Physical Degradation of Water & Wetlands			*	*	*	*	*	*	*	*	-	-
Public Health Education				*	*	*	*	*	*	*	-	-
Solid Waste Disposal / Recycling			*	*	*	*	*	*	*	*	-	-
Wastewater Management			*	*	*	*	*	*	*	*	-	-
Notes: IG - ingestion, IH- inhalation, DT-dietary, DR-dermal												

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