

AIR QUALITY IMPACT



Human Effects

- ◉ Air Pollution – Substance created by with an adverse affect on the atmosphere.
 - Can be man-made or natural
 - Example of each?



Main Types

- ◉ Sulfur Oxides – Created by volcanoes and factories. Sulfur can bond with oxygen in air to create acid rain.
- ◉ Nitrogen Oxides – Created by thunderstorms and combustion engines. Toxic
- ◉ Carbon Oxides – Created by volcanoes and combustion engines. Can be toxic



Main Types

- ⦿ Particulates – airborne solids. Can cause cancer
- ⦿ **ChloroFluoroCarbon's - (CFC's) a pollutant found in aerosols, breaks down ozone**
 - Loss of ozone can lead to harmful UV radiation




Sources

- **Stationary Sources – Coal power plants, Industrial Factories**
- Mobile Sources – cars, planes, ships
- Fumes – aerosols, paint, hair spray
- Waste Deposition- landfills create gases as waste breaks down

Solutions

- ⦿ Scrubbers- remove gases or particles from a point source location.
- ⦿ Regulation- Country uses standards to prevent too much pollution to come from one location
 - Ex. Clean Air Act of 1963

- Air Quality Index- Indicates to the public the health risk at a location and time.

	Air Quality Index for Ozone	
Index Values (Conc. Range)	Air Quality Descriptors	Cautionary Statements for Ozone
0 – 50 (0-60 ppb)	Good	No health impacts are expected when air quality is in this range.
51 – 100 (61-75 ppb)	Moderate	Unusually sensitive people should consider limiting prolonged outdoor exertion
101 – 150 (76-104 ppb)	Unhealthy for Sensitive Groups	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion
151 – 200 (105-115 ppb)	Unhealthy	Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children should limit prolonged outdoor exertion.
201 – 300 (116-374 ppb)	Very Unhealthy	Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.



