

Air and Water Pollution Control

Air and water pollution control addresses the release of contaminants, usually human made, into the environment with the purpose of eliminating the source or mitigating the impacts.

Air pollutants can be classified into suspended particulate matter (PM) (dusts, fumes, mists, and smokes); gaseous pollutants (gases and vapors); and odors. Outdoor air pollution is mainly caused by the combustion of petroleum products and coal by motor vehicles, industry, and power stations. Air Pollution can also originate from industrial processes that involve the formation of dust (for example, cement factories and metal smelters) or gas releases (for instance, chemicals production).

Water Pollution is typically categorized into either chemical contaminants or pathogens. Chemical contaminants usually enter a water source through surface water runoff or are dissolved from soil and rock layers into ground water. The pollution of water with pathogens occurs through contamination with bacteria, protozoa, or virus. Typical sources of pathogen contamination are the introduction of human waste, pet waste, and wildlife excreta into the water cycle through surface water runoff or direct exposure into a water source.

Separate from surface or ground water pollution is coastal water pollution such as the contamination of fish and shellfish with pathogens, heavy metals, persistent chemicals like polychlorinated biphenyls (PCB's) and dioxins, or the introduction and presence of plastic marine debris which endangers wildlife and leaches toxins.

Air and Water Pollution Control addresses both point and nonpoint source contaminants. Point-source pollution is due to discharges from a single source, such as an industrial site. Nonpoint-source pollution involves many small sources that combine to cause significant pollution.

Projects in this category will address either the clean-up of contaminants or the prevention of pollutants released into the environment on the community level, watershed, or larger level depending on the conservation need being addressed.

For the purposes of a BSA Distinguished Conservation Service Award conservation project, substances suspected by the scientific community as having adverse effects on the environment may be classified as pollutants without scientific research proving a definite causal link. In most instances, the long term or compound impacts of continuous exposure takes a long time to manifest, even if early research suggests indications of such links. When the causal links can be proven, often irreversible environmental damage has already occurred. Due to this, prevention of exposure or clean-up of such substances will be accepted if candidates can provide research documentation of the early indications of pollution.

Energy Conservation

Energy conservation is the practice of reducing energy consumption through either using less of service or using less energy for a constant service (energy efficiency). For example, having the lights on in your house less often, thus reducing the amount of energy used, or using LED bulbs which use less energy and keeping the lights on the usual amount of time. All types of energy sources will fall under this category: electricity, fossil fuels, and sustainable energy sources.

Projects in this category will focus on enabling a household(s), organization, or community in the reduction of energy use or conversion to sustainable energy sources

Fish and Wildlife Management

Fish and wildlife management encompasses the conservation strategies used to maintain healthy fish and wildlife populations and their associated habitats while attempting to minimize or eradicate the possibility of extinction of species. Fish and Wildlife conservation strategies take into consideration ecological principles such as carrying capacity, disturbance, and succession, as well as environmental conditions such as physical geography pedology and hydrology with the aim of balancing the needs of wildlife with the needs of people.

Projects in this category will focus on creating or improving habitat; reintroduction of native species; mitigation/eradication of invasives; or assistance to at risk or endangered species.

Forestry and Range Management

Forestry and range management is the science of sustaining healthy, productive, ecologically diverse woodlands and grasslands. Management strategies will balance the needs of wildlife with those of current and future human activities.

Projects in this category will address all types of rangeland including tall and short grass prairies, desert grass and shrub lands, savannas, chaparrals, steppes, tundra, and woodlands. Projects may address but are not limited to livestock grazing, wildfire restoration, forest thinning, vegetation restoration, reforestation, vegetation health/infestation management, or preservation of meadows from forest encroachment.

Hazardous Material Disposal and Management

Hazardous Material (HAZMAT) is any biological, chemical, or radiological substance that, when improperly handled, has the potential to cause substantial harm to human health, safety, or the environment. The term includes hazardous substances, hazardous wastes, marine pollutants, and materials designated as hazardous or which meet the defining criteria of hazard classes by federal code (49 CFR 172.101).

Projects focusing on HAZMAT disposal, or Hazardous Waste, may focus on the collection and turn in of Hazardous waste to a collection facility, or the actual destruction or stabilization of HAZMAT. Projects may also focus on the minimization of Hazardous Material in industry production, recycling hazardous material, decontamination of wildlife following exposure, or risk mitigation for HAZMAT during transportation or storage.

Invasive Species Control

An Invasive Species is any living organism; plant, animal, insect, or pathogen, which has been introduced to an environment it is not native to and has the ability to outcompete native species for life sustaining resources, causing or likely to cause harm to the ecosystem.

Projects in this category will focus on spread prevention or removal of invasive species.

Pollinator Management

Pollinator management is the practice of managing an area to increase the number of desired pollinators living in and/or using the area. Consideration is given to resident, transient, and migratory pollinators and addresses needs of the pollinators throughout the phases of their life cycles. Management includes both the land and aquatic features.

Projects in this category will focus on establishing or increasing the habitat or reducing the threats to the desired pollinator species.

Resource Recovery

Resource Recovery is the selective extraction of disposed material for a specific next use, such as recycling, compositing, or energy generation to extract the maximum benefits from products, delay the consumption of virgin resources, and reduce the amount of waste generated.

Recycling is the collection and reuse of disposed materials such as empty beverage containers, paper, or cardboard. The materials from which the items are made can be reprocessed into new products.

Disposed materials that are organic in nature, such as plant material, food scraps, and paper products, can be composted. The resulting organic material can then be used as mulch or soil for agricultural or landscaping purposes.

Composting can also be used as an energy generation process when gas from the process, such as methane, is captured to generate electricity and heat.

Projects in this category will focus on the collection of reusable waste products and/or the establishment of a resource recovery system allowing for long term benefit. One-time collection events are rarely substantial enough to qualify as a substantial BSA Distinguished Conservation Service Award project. Candidates whose projects focus on collection should be prepared to provide evidence of a truly substantial impact or a sustained impact through the continuation of the project in the foreseeable future.

Soil and Water Conservation

Soil conservation focuses on land management strategies designed to prevent soil erosion or the contamination of soil through chemical alteration, acidification, salinization, or other contaminants. Water conservation encompasses management strategies and policies used to manage fresh water as a sustainable resource, and to meet current and future demand for fresh water.

Projects in this category will focus on the prevention or reduction of soil erosion; mitigating the effects of soil erosion; prevention or clean-up of soil contamination; or ensuring the sustainability of fresh water for future generations.