

## GLOSSARY

**Action Alternative** — An alternative that proposes a different management action or actions to address the purpose, need, and objectives of the plan; one that proposes changes to the current management. Alternatives B, C, and D are the action alternatives in this planning process. See also: “No-Action Alternative.”

**Adaptive Management** — The rigorous application of management, research, and monitoring to gain information and experience necessary to assess and modify management activities. A process that uses feedback from research and the period evaluation of management actions and the conditions they produce to either reinforce the viability of objectives, strategies, and actions prescribed in a plan or to modify strategies and actions in order to more effectively accomplish management objectives.

**Affected Environment** — A description of the existing environment that may be affected by the proposed action (40 CFR 1502.15).

**Antibody** — An immunoprotein that is produced by lymphoid cells in response to a foreign substance (antigen), with which it specifically reacts.

**Antigen** — A foreign substance, usually a protein or polysaccharide, which stimulates an immune response upon introduction into a vertebrate animal.

**Anthracnose** — Any of several plant diseases caused by certain fungi and characterized by dead spots on the leaves, twigs, or fruits.

**Biobullet** — A single dose, biodegradable projectile comprised of an outer methylcellulose casing containing a solid, semi-solid, or liquid product (usually a vaccine or chemical contraceptive), propelled by a compressed-air gun.

**Blight** — Any of numerous plant diseases that result in sudden and conspicuous wilting and dying of affected parts, especially young growing tissues.

**Bluetongue Virus** — An insect-transmitted, viral disease of ruminant animals, including white-tailed deer, which causes inflammation, swelling, and hemorrhage of the mucous membranes of the mouth, nose, and tongue.

**Browse Line** — A visible delineation at approximately six feet below which most or all vegetation has been uniformly browsed.

**Carnivore** — An animal that eats a diet consisting solely or mostly of meat.

**Carrying Capacity** — The maximum number of organisms that can be supported in a given area or habitat.

**Cervid** — A member of the deer family, such as white-tailed deer, mule deer, elk, moose, and caribou.

**Chronic Wasting Disease (CWD)** — A slowly progressive, infectious, self-propagating neurological disease of captive and free-ranging deer, elk, and moose. CWD belongs to the transmissible spongiform encephalopathy (TSE) group of diseases and is characterized by accumulations of abnormal prion proteins in neural and lymphoid tissue.

**Contragestive** — A product that terminates pregnancy.

**Contractor** — For the purposes of this plan, a contractor is a fully-insured business entity, nonprofit group, or other governmental agency engaged in wildlife management activities that include trapping, immobilization, and lethal removal through sharpshooting and chemical euthanasia. The contractor must possess all necessary permits and be able to pass any needed security clearances.

**Cultural Landscape** — A geographic area (including both cultural and natural resources and the wildlife or domestic animals therein) associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

**Cumulative Impacts** — Those impacts on the environment that result from the incremental effect of the action when added to the past, present, and reasonable foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

**Deer Herd** — The group of deer living within Catoctin Mountain park that have common characteristics and interbreed among themselves. For the purposes of this plan, this term is synonymous with deer population.

**Deer Population** — See Deer Herd, above.

**Demographic** — Referring to the intrinsic factors that contribute to a population's growth or decline: birth, death, immigration, and emigration. The sex ratio of the breeding population and the age structure (the proportion of the population found in each age class) are also considered demographic factors because they contribute to birth and death rates.

**Depredation** — Damage or loss.

**Direct Reduction** — Lethal removal of deer; includes both sharpshooting and capture/euthanasia.

**Distance Sampling** — An analytical method to estimate population density that involves an observer traveling along a transect and recording how far away objects of interest are.

**Endemic** — Native to or confined to a particular region.

**Ecosystem** — An ecological system; the interaction of living organisms and the nonliving environment producing an exchange of materials and energy between the living and nonliving.

**Epizootic Hemorrhagic Disease** — An insect-borne viral disease of ruminants that causes widespread hemorrhages in mucous membranes, skin, and visceral organs.

**Environment** — The sum total of all biological, chemical, and physical factors to which organisms are exposed; the surroundings of a plant or animal.

**Environmental Assessment (EA)** — A concise public document, prepared in compliance with NEPA, that briefly discusses the purposes and need for an action, and provides sufficient evidence and analysis of impacts to determine whether to prepare an environmental impact statement or finding of no significant impact (40 CFR 1508.9).

**Environmental Consequences** — Environmental effects of project alternatives, including the proposed action, any adverse environmental effects which cannot be avoided, the relationship between short term uses of the human environment, and any irreversible or irretrievable commitments of resources which would be involved if the proposal should be implemented (40 CFR 1502.16).

**Environmental Impact Statement (EIS)** — A detailed written statement required by Section 102(2)(C) of the National Environmental Policy Act, analyzing the environmental impacts of a proposed action, adverse effects of the project that cannot be avoided, alternative courses of action, short term uses of the environment versus the maintenance and enhancement of long term productivity, and any irreversible and irretrievable commitment of resources (40 CFR 1508.11).

**Ethnographic Resource** — Any site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it.

**Euthanasia** — Ending the life of an animal by humane means.

**Exclosure** — An area enclosed by a barrier, such as a fence, to protect vegetation and prevent browsing by animals.

**Exotic Species** — Any introduced plant, animal or protist species that is not native to the area and may be considered a nuisance; also called non-native or alien species.

**Extirpated Species** — A species that is no longer present in an area where it once lived.

**Exsanguination** — The action or process of draining blood.

**Forest Regeneration** — For the purposes of this plan, the regrowth of forest species and renewal of forest tree cover such that the natural forest sustains itself without human intervention.

**Genetic Variability** — The amount of genetic difference among individuals in a population.

**Habitat** — The environment in which a plant or animal lives (includes vegetation, soil, water, and other factors).

**Habitat Fragmentation** — The breaking up of large, contiguous blocks of habitat into small, discontinuous areas that are surrounded by altered or disturbed lands.

**Hectare** — A metric unit of area equal to 2.471 acres.

**Herbaceous Plants** — Non-woody plants; includes grasses, wildflowers, and sedges and rushes (grass-like plants).

**Herbivore** — An animal that eats a diet consisting primarily of plant material.

**Histopathology** — The study of the microscopic anatomical changes in diseased tissue.

**Home Range** — The geographic area in which an animal normally lives.

**Hypothesis** — A tentative explanation for an observation or phenomenon that can be tested by further investigation.

**Immunocontraception** — The induction of contraception by injecting an animal with a compound that produces an immune response that precludes pregnancy.

**Immunocontraceptive** — A contraceptive agent that causes an animal to produce antibodies against some protein or peptide involved in reproduction. The antibodies hinder or prevent some aspect of the reproductive process.

**Immunohistochemistry** — Identification of specific antigens in tissues by staining them with antibodies that are labeled with fluorescent or colored material.

**Impairment** — As used in NPS Management Policies, "impairment" means an adverse impact on one or more park resources or values that interferes with the integrity of the park's resources or values, or the opportunities that otherwise would exist for the enjoyment of them, by the present or a future generation. Impairment may occur from visitor activities, NPS activities in managing a park, or activities undertaken by concessioners, contractors, and others operating in a park. As used here, the impairment of park resources and values has the same meaning as the phrase "derogation of the values and purposes for which these various areas have been established," as used in the General Authorities Act.

**Infrared** — The range of invisible radiation wavelength just longer than the red in the visible spectrum.

**Irretrievable** — A term that applies to the loss of production, harvest, and consumptive or nonconsumptive use of natural resources. For example, recreation experiences are lost irretrievably when an area is closed to human use. The loss is irretrievable, but the action is not irreversible. Reopening the area would allow a resumption of the experience.

**Irreversible** — A term that describes the loss of future options. Applies primarily to the effects of use of nonrenewable resources, such as minerals or cultural resources, or to those factors, such as soil productivity that are renewable only over long periods of time.

**Leuprolide** — A reproductive control agent that prevents secondary hormone secretion, which stops the formation of eggs and ovulation. Leuprolide is a GnRH agonist (see Appendix E for additional details).

**Lithic** — Of or relating to stone.

**Lumbar** — Of, near, or situated in the part of the back and sides between the lowest ribs and the pelvis.

**Macroinvertebrate** — A relatively large, generally soft-bodied organism that lacks a backbone.

**Monitoring** — A process of collecting information to evaluate if an objective and/or anticipated or assumed results of a management plan are being realized (effectiveness monitoring) or if implementation is proceeding as planned (implementation monitoring).

**National Environmental Policy Act of 1969 (NEPA)** — A law that requires all Federal agencies to examine the environmental impacts of their actions, incorporate environmental information, and utilize public participation in the planning and implementation of all actions. Federal agencies must integrate NEPA with other planning requirements and prepare appropriate NEPA documents to facilitate better environmental decision making. NEPA requires Federal agencies to review and comment on Federal agency environmental plans/documents when the agency has jurisdiction by law or special expertise with respect to any environmental impacts involved (42 U.S.C. 4321-4327) (40 CFR 1500-1508).

**Naturally Regenerating and Sustainable Forest** — A forest community that has the ability to maintain plant and animal diversity and density by natural (non-human facilitated) tree replacement.

**Nephelometric Turbidity Unit (NTU)** — A unit of measure for turbidity.

**No-Action Alternative** — The alternative in which baseline conditions and trends are projected into the future without any substantive changes in management (40 CFR 1502.14(d)). Alternative A is the no-action alternative in this planning process.

**Omentum** — One of the folds of the peritoneum that connect the stomach with other abdominal organs.

**Opportunistic Surveillance** — Taking diagnostic samples for CWD testing from deer found dead or harvested through a management activity within a national park unit.

**Palatability** — The property of being acceptable to the taste or sufficiently agreeable in flavor to be eaten.

**Paleontological Resources** — A resource related to the forms of life existing in prehistoric or geologic times, such as fossils of plants, animals, and other organisms.

**Parasitism** — A symbiotic relationship in which one species, the parasite, benefits at the expense of the other, the host.

**Penetrating Captive Bolt Gun** — A gun with a steel bolt that is powered by either compressed air or a blank cartridge. When fired, the bolt is driven into the animal's brain and renders it instantly unconscious without causing pain.

**Pericardial** — Around or surrounding the heart.

**Pheromone** — A chemical secreted by an animal that influences the behavior or development of others of the same species, often functioning as an attractant of the opposite sex.

**Population (or Species Population)** — A group of individual plants or animals that have common characteristics and interbreed among themselves and not with other similar groups.

**Prion** — Proteinaceous infectious particle; a microscopic particle similar to a virus but lacking nucleic acid, thought to be the infectious agent for certain degenerative diseases of the nervous system such as CWD.

**Radial Distance** — A straight-line distance measured along a radius.

**Record of Decision (ROD)** — A concise public record of decision prepared by a federal agency, pursuant to NEPA, that contains a statement of the decision, identification of all alternatives, a statement as to whether all practical means to avoid or minimize environmental harm from the alternative selected have been adopted (and if not, why they were not), and a summary of monitoring and enforcement where applicable for any mitigation (40 CFR 1505.2).

**Recruitment** — Number of organisms surviving and being added to a population at a certain point in time.

**Reproductive Control** — A method or methods used to limit the numbers of animals in a population by decreasing the reproductive success of the animals, such as contraception or sterilization.

**Rhyolite** — A fine-grained extrusive volcanic rock used by Native Americans.

**Rut** — An annually recurring condition or period of sexual excitement and reproductive activity in deer; the breeding season.

**Sapling** — A young tree, generally not over 4 inches in diameter at breast height.

**Scoping** — An early and open process for determining the extent and variety of issues to be addressed and for identifying the significant issues related to a proposed action (40 CFR 1501.7).

**Secondary Succession** — A gradual change from one community to another, characterized by a progressive change in species structure, an increase in biomass and organic matter, and a gradual balance between community production and community respiration.

**Seedling** — A young plant grown from seed; a young tree before it becomes a sapling.

**Seral** — A phase in the sequential development of a climax community.

**Sex Ratio** — The proportion of males to females (or vice versa), in a population. A sex ratio of 50:50 would mean an equal number of does and bucks in a deer population.

**Sharpshooting** — The authorized shooting of animals by specially trained professionals using appropriate weapons for means of effective and efficient lethal control.

**Species Diversity** — The variety of different species present in a given area; species diversity takes into account both species richness and the relative abundance of species.

**Species Richness** — The number of species present in a community.

**Spotlight Survey** — A method used to estimate deer numbers in an area by shining spotlights at night and counting the number of deer observed. This technique provides an estimate of deer numbers but not density.

**Subcutaneous** — Under the skin.

**Targeted Surveillance** — Lethal removal of deer that exhibit clinical signs of CWD, such as changes in behavior and body condition, and testing to determine if CWD is present.

**Transect** — A line along which sampling is performed.

**Transmissible Spongiform Encephalopathies (TSEs)** — A group of diseases characterized by accumulations of abnormal prion proteins in neural and lymphoid tissues, which cause distinctive lesions in the brain and result in death.

**Turbidity** — Visible undissolved solid material suspended in water.

**Ungulate** — A hoofed, typically herbivorous, animal; includes horses, cows, deer, elk, and bison.

**Vaccine** — A suspension of killed or attenuated microorganisms that, when introduced into the body, stimulates an immune response against that microorganism.

**Vascular Plant** — A plant that contains a specialized conducting system consisting of phloem (food-conducting tissue) and xylem (water-conducting tissue). Ferns, trees, and flowering plants are all vascular plants.

**Viable White-tailed Deer Population** — A population of deer that allows the forest to naturally regenerate, while maintaining a healthy deer population in the park.

**Woody Plants** — Plants containing wood fibers, such as trees and shrubs (see “Herbaceous Plant”).

## ACRONYMS

APHIS	Animal and Plant Health Inspection Service, U.S. Department of Agriculture
AVMA	American Veterinary Medical Association
Bt	<i>Bacillus thuringiensis</i>
CEQ	Council on Environmental Quality
CWD	chronic wasting disease
EPA	Environmental Protection Agency
FDA	Food and Drug Administration
GCIV	GonaCon™ immunocontraceptive vaccine
GnRH	gonadotropin releasing hormone (reproductive control hormone)
HSUS	Humane Society of the United States
INAD	Investigational New Animal Drug (classification by the Food and Drug Administration)
MASS	Maryland Agriculture Statistics Service
MD DNR	Maryland Department of Natural Resources
NASS	National Agricultural Statistics Service
NEPA	National Environmental Policy Act
NIST	National Institute of Standards and Technology
NPS	National Park Service, U.S. Department of the Interior
NWR	National Wildlife Refuge
PZP	porcine zona pellucida
SCWDS	Southeastern Cooperative Wildlife Disease Study
USDA	U.S. Department of Agriculture



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