

U.S. Department of Justice

Office of Justice Programs

Grant Funding Programs



Draft Programmatic Environmental Assessment

Table of Contents

Acronyms	4
Chapter 1. Purpose and Need	5
1.1 <i>Introduction and Background: Overview of the Office of Justice Programs and Its Mission</i>	5
1.1.1 What Is a Programmatic Environmental Assessment and Why Is One Being Prepared for the OJP Funding Programs?	6
1.2 <i>Use of the PEA</i>	7
1.3 <i>Purpose and Need for Action</i>	8
Chapter 2. The Alternatives	10
2.1 <i>Introduction</i>	10
2.2 <i>Alternatives Considered</i>	10
2.2.1 No Action Alternative	10
2.2.2 Action Alternative	11
2.3 <i>OJP Activities for Analysis</i>	11
Chapter 3. Affected Environment	13
3.1 <i>Introduction</i>	13
3.2 <i>Description of the Project Area</i>	14
3.2.1 Geographic Scope	14
3.2.2 Temporal Scope	14
3.3 <i>Environmental Resources</i>	14
3.3.1 Land Use.....	15
3.3.2 Air Quality	16
3.3.3 Geology, Topography, and Soils.....	17
3.3.4 Solid and Hazardous Waste.....	18
3.3.5 Energy	20
3.3.6 Noise	21
3.3.7 Water Resources	22
3.3.8 Biological Resources.....	26
3.3.9 Cultural Resources	28
3.3.10 Aesthetics.....	29

3.3.11 Workplace Safety and Health.....	30
3.3.12 Environmental Justice	30
83.4 OJP Funded Activities and Federally Recognized Tribes.....	32
Chapter 4. Impacts Analysis	34
4.1 Resource Area Significance Criteria	34
4.2 Construction Impacts	36
4.2.1 Analysis of Resource Areas	37
4.2.2 Requirements for Further Analysis and Mitigation Measures	56
4.3 Routine Laboratory Impacts.....	62
4.3.1 Resource Areas Dismissed from Analysis.....	62
4.3.2 Analysis of Resource Areas	64
4.3.3 Requirements for Further Analysis and Mitigation Measures	72
4.4 Training Impacts	77
4.4.1 Resource Areas Dismissed from Analysis.....	78
4.4.2 Analysis of Resource Areas	79
4.4.3 Requirements for Further Analysis and Mitigation Measures	91
4.5 Body Decomposition Impacts.....	97
4.5.1 Resource Areas Dismissed from Analysis.....	100
4.5.2 Analysis of Resource Areas	101
4.5.3 Requirements for Further Analysis and Mitigation Measures	114
4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts	119
4.6.1 Resource Areas Dismissed from Analysis.....	121
4.6.2 Analysis of Resource Areas	122
4.6.3 Requirements for Further Analysis and Mitigation Measures	134
References.....	139

Acronyms

APE	Area of Potential Effect
ARPA	Archaeological Resources Protection Act
BGEPA	Bald and Golden Eagle Protection Act
CATEX	Categorical Exclusion
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
CJTEC	Criminal Justice Testing and Evaluation Consortium
CTP	Compliance Testing Program
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dBA	A-weighted decibel
DNL	Day-night Noise Level
DOC	Department of Commerce
DOI	Department of the Interior
DOJ	Department of Justice
EA	Environmental Assessment
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
FAC	Forensic Anthropological Centers
FICON	Federal Interagency Committee on Noise
FIT	Follow-Up Inspection and Testing Program
FNWA	Federal Noxious Weed Act
FONSI	Finding of No Significant Impact
GDP	Gross Domestic Product
HUD	U.S. Department of Housing & Urban Development
IPaC	Information for Planning and Consultation
kWh	kilowatt hour
LEPC	Local Emergency Planning Committee
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Act
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NCA	Noise Control Act

NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIJ	National Institute of Justice
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRI	Nationwide Rivers Inventory
OJP	Office of Justice Programs
OSHA	Occupational Safety and Health Administration
PEA	Programmatic Environmental Assessment
RCRA	Resource Conservation and Recovery Act
RTI	Research Triangle Institute
SDWA	Safe Drinking Water Act
SERC	State Emergency Response Commission
T&E	Threatened & Endangered
THPO	Tribal Historic Preservation Officer
TMDL	Total Maximum Daily Load
TSCA	Toxic Substances Control Act
UAs	Urban Areas
UCs	Urban Clusters
USC	United States Code
USFWS	US Fish and Wildlife Service
WQS	Water Quality Standards
WSRA	Wild and Scenic Rivers Act

Chapter 1. Purpose and Need

1.1 Introduction and Background: Overview of the Office of Justice Programs and Its Mission

The Department of Justice (DOJ) Office of Justice Programs (OJP) provides federal leadership, grants, training, technical assistance and other resources to advance work that promotes civil rights and racial equity, increases access to justice, supports crime victims and individuals impacted by the justice system, strengthens community safety and protects the public from crime and evolving threats, and builds trust between law enforcement and the community. OJP works with the justice community to identify and address the most pressing crime-related challenges confronting the criminal and juvenile justice systems. OJP promotes a unified, efficient and fair response to crime and public safety threats through partnerships with law enforcement, courts, justice practitioners and professionals; victims' services agencies; and community and faith-based organizations involved in crime prevention, civil rights enforcement, and victims' services efforts.

Chapter 1. Purpose and Need

The focus of OJP solicitations varies from year to year based on priorities, available funding, and legislative mandates. OJP provides funding to educational institutions, states, tribes, units of local government, nonprofit organizations, faith-based organizations, and individuals. In addition to grants, OJP provides funding through interagency agreements, cooperative agreements, and public challenges.¹

1.1.1 What Is a Programmatic Environmental Assessment and Why Is One Being Prepared for the OJP Funding Programs?

The National Environmental Policy Act (NEPA) requires federal agencies to conduct Environmental Assessments (EAs) when major federal actions are considered that may have a significant impact on the environment. The implementing regulations for NEPA (40 C.F.R. § 1500-1508.) encourage agencies to implement environmental analyses early in the planning process to ensure that environmental considerations are taken into account in agency decision-making. This Programmatic Environmental Assessment (PEA) was prepared pursuant to the 1978 regulations issued prior to September 2020.

NEPA requires that federal agencies consider the effects of a proposed action and any reasonable alternatives on the human environment. NEPA reviews may be site- or project-specific or on a broader – programmatic – level. Programmatic NEPA reviews assess the environmental impacts of proposed policies, plans, programs, or projects for which subsequent actions would be implemented based on the PEA or Programmatic Environmental Impact Statement (EIS) or where a subsequent NEPA review (e.g., a site- or project-specific document) would be completed that tiers from the programmatic review. A Programmatic NEPA review is appropriate for the broad decision – *how to implement OJP programs to provide funding to applicants for criminal justice program and project development and research* - contemplated in this EA.

The National Institute of Justice (NIJ), a component of OJP, has an existing PEA that was issued in 2010. This existing PEA has since been adopted and is currently used by the Bureau of Justice Assistance as well. Council on Environmental Quality (CEQ) guidance recommends that agencies re-examine existing NEPA analyses for long term programs every five years. Consistent with this recommendation, OJP has reviewed the existing PEA used by NIJ and BJA and has determined that a new analysis is warranted based on the factors found in 40 CFR 1502.19.

This PEA is an update and re-evaluation of the analysis completed in the 2010 NIJ PEA and is intended to replace the existing PEA. This update differs from the existing PEA in that it will cover all of OJP's funding programs. This PEA evaluates the impacts of the no action and the action alternatives, to assist OJP in determining how to implement OJP funding programs.

1.2 Use of the PEA

This PEA will evaluate the broad impacts of implementing OJP funded actions but will not evaluate detailed environmental consequences associated with the provision of funds in specific locations, industries, or individual actions resulting from implementation of the proposed action. Subsequent tiered NEPA analyses may be prepared to examine the impacts of specific activities being considered for funding by OJP if more detailed analysis becomes necessary for a specific project or proposal. This PEA will also facilitate compliance with other environmental and historic preservation requirements by providing a framework to address the impacts of actions typically funded by OJP.

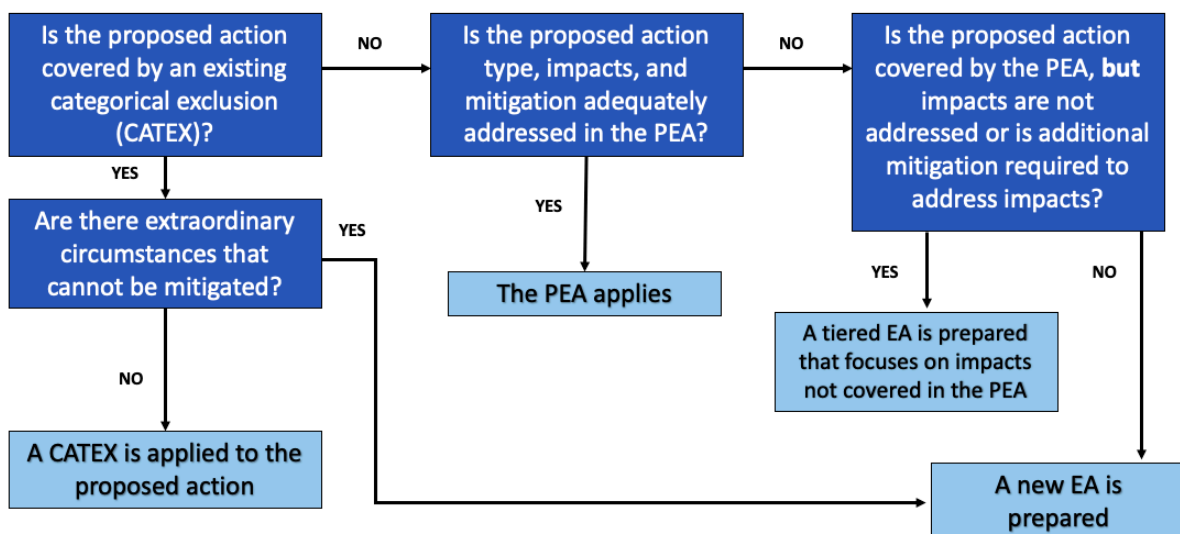
This programmatic analysis identifies program level impacts typically associated with different activity types funded by OJP. The PEA also identifies activity types unlikely to result in significant environmental impacts and for which no additional NEPA documentation is normally necessary unless the specific location or activity details warrant additional review.

Tiering

Tiering is a process of addressing general environmental impacts in a programmatic NEPA document followed by a more focused and narrower NEPA document that focuses only on the unique issues specific to the activity subsequently analyzed. CEQ encourages tiering because it allows agencies to avoid repetitive and redundant analysis.

Figure 1 shows the decision-making process OJP and their designated NEPA Coordinators will use to determine the appropriate method of NEPA compliance for specific OJP funded activities.

Figure 1. OJP method of determining NEPA compliance



1.3 Purpose and Need for Action

OJP continuously improves its funding programs to ensure that they meet the needs of state, local, and tribal criminal justice professionals, and local communities. Over the past decade since the last PEA was completed, the needs of the criminal justice community have evolved as new threats and challenges have emerged. OJP needs to continue to invest in funding the latest research, development, testing, and evaluation activities across the country and continue to provide assistance to federal, state, local, and tribal agencies for activities that contribute to the advancement of justice, engagement of communities, and prevention and reduction of crime to ensure the best information and solutions are available to combat crime and promote justice.

OJP's specific funding programs and authorities are established by legislation and are designed to allow the federal government to assist local governments in combating crime. Within the framework established by legislation, OJP establishes short- and long-term priorities in several areas, including but not limited to:

- Causes and correlates of crime
- Crime prevention and control
- Prevention of violence and victimization
- Forensic sciences
- Corrections practice and policy, including community corrections
- Law enforcement effectiveness, legitimacy, accountability, and safety
- Courts and adjudication²
- Advancement of tribal justice
- Protection of vulnerable populations
- Capacity building³
- Juvenile justice issues⁴
- Human trafficking⁵
- Sex offender management⁶

Specific priorities shift to meet the needs of the criminal justice community as criminal justice challenges and needs evolve over time. There are a number of recent criminal justice trends affecting OJP funding priorities and implementation. These trends include:

- **Increase in deaths related to opioids and resurgence in methamphetamine addiction:** In the past ten years since the last PEA was completed, overdose deaths from opioids have increased rapidly. According to the National Drug Threat Assessment,⁷ The President's Commission on Combating Drug Addiction and the Opioid Crisis has called for coordinated federal, state, local, and tribal law enforcement efforts to reduce illegal drug supply. In addition to opioid addiction, some states are seeing a resurgence in methamphetamine addiction.

Chapter 1. Purpose and Need

- **Backlog of forensic evidence and challenges in laboratory capacity:** Forensic evidence (DNA Analysis, sexual assault kits, controlled substances, toxicology, latent prints, firearms, trace evidence) is becoming increasingly important in the criminal justice field, providing criminal justice professionals with reliable evidence to help solve crimes. With this increased reliance on forensic evidence comes the need for space and personnel to process the evidence. For example, demands for forensic DNA analysis increased every year from 2009 to 2014, with a 28% increase in cases submitted to forensic DNA laboratories.⁸ Backlogs for processing this evidence exist throughout the country. OJP funds are critical to eliminating these backlogs to improve the reliability and timeliness of the evidence.
- **DNA evidence in post-conviction relief:** The introduction of DNA testing in recent decades presents new opportunities for determining wrongful conviction. The increase in exonerations over the last 20 years has accentuated the need for research on how, why, and how often wrongful convictions occur.
- **Shortage of board-certified forensic pathologists:** There is an extreme shortage of board-certified forensic pathologists in the United States, leading to delays in death investigations. Quantitative improvements are needed to assist law enforcement identify perpetrators, reduce wrongful convictions, and enhance homeland security.⁹
- **Tribal criminal justice and public safety needs:** Current infrastructure in tribal communities affects their ability to effectively address criminal justice and public safety needs. Tribes need assistance in planning and implementing physical infrastructure for existing correctional facilities, correctional alternative/treatment facilities, multipurpose justice centers, domestic violence centers, and transitional living facilities to improve tribal justice system facilities.¹⁰

To meet these needs along with the needs of other criminal justice programs and priorities, OJP evaluates and funds approximately 7,000 projects/year. OJP is the only federal agency that supports forensic science programs dedicated to research, development, testing, and evaluation in conjunction with capacity building and technical assistance. OJP needs to continue funding these activities to combat crime and promote justice across the country.

Chapter 2. The Alternatives

2.1 Introduction

This chapter discusses alternatives for implementing OJP's funding programs to meet the agency's objective to provide leadership, resources, and solutions for creating safe, just, and engaged communities and improve criminal justice outcomes and knowledge through science. As stated in [Chapter 1](#), NEPA requires federal agencies to consider the effects of a proposed action and any reasonable alternatives on the human environment. There is value to the decision maker in considering alternatives through the NEPA process as a decision-making tool; the NEPA process allows the decision maker to consider which alternative will best meet the purpose and need and minimize potential environmental impacts. The generation of alternatives may also lead to a variety of approaches concerning how to scope and develop projects under consideration. Although NEPA does not require selection of a particular alternative based on potential impacts, it does offer the decision maker a robust source of information for determining which action to take.

2.2 Alternatives Considered

In order to develop alternatives for implementing OJP funded actions, OJP first conducted a review of its existing programs and activities and those anticipated in the future. OJP also conducted a review of the existing NEPA process for funded activities over the past decade, as well as a review of the existing PEA that covers some of its existing funding activities.

OJP then considered possible alternatives to implementing OJP funded actions. To generate alternatives, OJP considered the critical role of OJP in supporting the needs of state, local, and tribal agencies, which require federal funding in the face of shrinking budgets and increasing workloads. Given the need for OJP funding within the criminal justice community, and the wide variety of OJP funded activities, OJP determined that the reasonable alternatives to consider are limited to whether to continue implementing OJP funded actions (proposed action) or to not continue funding (the no action alternative). The no action alternative is a required alternative for consideration under NEPA. These alternatives, at the programmatic level, allow OJP:

- To consider OJP funded activities holistically when evaluating potential impacts, including cumulative impacts.
- To streamline compliance by organizing activities according to potential impacts rather than funding source.
- To avoid additional analyses for activities that are sufficiently covered by this comprehensive, programmatic NEPA analysis.
- To compare the impacts of funding certain activities on the environment to the baseline environmental condition.
- To identify potential mitigation measures for certain activity types.

2.2.1 No Action Alternative

Under the no action alternative, OJP would no longer fund activities through its funding programs and other funding vehicles (interagency agreements, etc.). State, local, and tribal entities would

0. Affected Environment

not receive federal assistance from OJP to support criminal justice activities such as research, development, testing, and evaluation; and expanding and improving critical criminal justice infrastructure such as court houses and public safety facilities. The no action alternative would leave these entities without federal assistance from OJP for these activities, requiring them to seek alternative sources of funding. The no action alternative would lead to insufficient and/or uncertain funding for these activities, which could result in limited advancement in criminal justice.

2.2.2 Action Alternative

Under the proposed action, OJP would continue providing funding to applicants to support its mission. All activities described in this PEA will support criminal justice activities and be funded under one of OJP's grant programs or other funding vehicles (interagency agreements, etc.).

2.3 OJP Activities for Analysis

OJP has identified the following activities for analysis in the PEA: construction, training, routine laboratory work, body decomposition research, and standards development testing and compliance testing. The analysis of the proposed action is organized around these activity categories rather than programs because the activities, and not the specific funding source, drive the potential environmental impacts that must be evaluated under NEPA.

Construction

Interior or exterior construction activities that involve minor renovations, new construction, or expansion of buildings and/or building systems.

Example Activities: Minor renovations on a single floor of an existing lab facility to accommodate changing needs; introducing a pre-fabricated office trailer adjacent to an existing facility; removing or building interior or exterior walls; replacing or implementing new utilities such as plumbing, electrical, telecommunication or HVAC systems; ground leveling or other site preparation activities for new construction or landscaping; new construction of an office building, research facility, or firing range.

0. Affected Environment

Training

Indoor classroom, laboratory, and computer training activities in support of education, or attendance at conferences, workshops, and seminars at existing facilities. Firearms training activities at existing, established outdoor and indoor firing ranges. Activities may include funding individuals to attend a training, or funding a training event/activity directly.

Example Activities: Funding individuals to attend a training or conference (including registration, travel and lodging expenses); funding a training event/activity directly (including booking a venue, food and individuals/groups providing the training, and purchasing materials and equipment required for the training activities); and firearms training for law enforcement at an existing permitted facility.

Excludes: All other outdoor training activities, indoor or outdoor training activities that utilize firearms outside of existing, established firing ranges, and any use of explosives.

Routine Lab Work

Indoor laboratory work using known or accepted methodology and industry standard equipment to achieve known outcomes.

Example Activities: Forensic biology laboratory work; firearms testing; sexual assault kit processing; activities may involve the use, collection, storage, and disposal of materials such as drugs, blood samples, DNA or firearms and bullets for analysis.

Excludes: Outdoor activities.

0. Affected Environment

Body Decomposition Research

Research on body decomposition at forensic anthropological centers (FACs).

Example Activities: Treatment and observation of the decomposition of human remains; treatments may include bodies being clothed or unclothed, and buried or unburied; sampling from the donor bodies during the decomposition process (removing pieces of bone, skin or other DNA samples or collecting soil swabs). Activities may involve the use of hazardous materials and the production of hazardous and biomedical waste.

Excludes: Body decomposition research activities that take place outside a currently established FAC; treatment activities that involve the use of fire or explosives in outdoor locations; exhumation activities.

Standards Development Testing and Compliance Testing for Protective Equipment

Indoor and outdoor laboratory testing activities completed in support of developing a standard or for testing a product for inclusion on the NIJ Compliant Products List.

Example Activities: Performing verification and conditioning tests of products; storage and disposal of products after testing is complete.

Excludes: Testing activities for products other than soft body armor, hard body armor, stab armor, ballistic materials, or pistols. Testing activities that involve the use of explosives.

Chapter 3. Affected Environment

3.1 Introduction

This chapter discusses the project area and resources potentially affected by the proposed action. The project area's affected environment establishes an environmental baseline. This baseline allows for comparison of the current environmental conditions to the potential conditions following implementation of the proposed action and allows for an analysis of potentially significant impacts. This chapter focuses on the biophysical, social, and economic environments pertinent to the OJP-funded activities that are within the scope of this PEA as defined in [Chapter 2](#) and analyzed in [Chapter 4](#).

0. Affected Environment

3.2 Description of the Project Area

In order to establish the parameters of the project area and an environmental baseline, both the geographic and temporal scope must be defined. The below subsections provide a description of the geographic and temporal scope defined for this PEA in order to establish the baseline and describe the resources that may potentially be affected by the proposed action.

3.2.1 Geographic Scope

OJP-funded actions occur throughout the whole United States, its territories, and tribal nations. OJP applicants include:

- State and local agencies (e.g., departments of justice, departments of public safety, state police)
- State and local courthouses
- Tribes
- Crime and forensic laboratories
- Attorneys general offices
- Town and/or county offices (e.g., medical examiners)
- Private laboratories
- Research groups and centers
- Nonprofit and for-profit organizations
- Correctional facilities
- Universities
- Federal partners (funded through interagency agreements)

Due to the wide range of applicants and activities, OJP-funded actions occur in a variety of locations including industrial, commercial, urban, rural, and undeveloped areas. [Section 3.3.1](#) further defines the difference between urban and rural environments. Each OJP-funded action may be affected by, and may affect, the unique resources of their geographic location as discussed throughout [Section 3.3](#) of this Chapter.

3.2.2 Temporal Scope

An analytical time frame needs to be established when conducting a programmatic NEPA analysis because, for each resource area, changes in the affected environment will occur over time. For example, land use or demographics in any given area may change over time and therefore change the potential for environmental impacts in those areas. Based on OJP's experience with its funding programs since the development of the last PEA, no major changes in funded activities or related science or technology are expected to occur for the next ten (10) years. Therefore, the temporal scope for this analysis is ten (10) years.

3.3 Environmental Resources

This PEA addresses the following resources within the affected environment: land use; air quality; geology, topography, and soils; solid and hazardous waste; energy; noise; water resources; biological resources; cultural resources; aesthetics; workplace health and safety; and environmental justice. Some resource areas, such as solid and hazardous waste and workplace

0. Affected Environment

health and safety, have similar impact considerations across the United States, its territories, and tribal nations, while other resource areas may have different impacts based on land use type (urban versus rural) or region of the United States (due to differing regulations or the prevalence of the resource in that region). Each resource area is discussed below with an overview of the laws and policies that regulate and protect the resource, applicable definitions, descriptions of the potential affected environment and potential differences in the baseline of the resource area depending on land use type (urban or rural), if applicable.

3.3.1 Land Use

There are no overarching federal laws, policies, or guidance for land use, as land use decisions are largely made at the state and local levels.

The U.S. Census Bureau considers two primary categories of land use: urban and rural. Per the US Census, urban areas (UAs) have populations of 50,000 or more, while urban clusters (UCs) have populations between 2,500 and 50,000.¹¹

Rural areas are all other areas not included within urban areas. Urban areas typically are densely populated, developed areas containing residential, commercial, and industrial land uses as well as roads, highways, bridges, and railways. Rural areas are typically sparsely populated and underdeveloped with small-scale infrastructure, containing agricultural and wilderness tracts.

Beyond urban and rural categories, land use can be defined by specific functions such as recreational, agricultural, residential, commercial, and industrial. The type of land use in an area determines which activities and uses (human or ecosystem) the land area is able to support. Ensuring that new activities and developments that are introduced into an area are suitable for the area's land use ensure that the area is able to maintain the features and attributes that allow it to successfully support a given category of land use and maintain its land use designation.

For the purposes of describing the affected environment, the land use resource includes zoning and transportation.

Zoning

Land use is typically managed at a county, municipal, or local level through tools including comprehensive plans, zoning ordinances, zoning regulations, and land use regulations. Zoning ordinances and regulations serve to guide county, municipal, and local level land use decisions. These regulations typically establish approved uses for certain areas, such as commercial, industrial, and residential zones.

Local, municipal, and state zoning can help to contain certain kinds of development, preserving or conserving valuable habitat and water resources. From a land use perspective, zoning can be an important tool in defining the type of development which can contribute to maintaining the functionality, sense of place and quality of life for that community. For example, zoning can ensure that industrial development is not in close proximity to incompatible uses, such as residential or commercial areas, where negative impacts, such as air and noise pollution would be more acutely felt by the community. Zoning can also inform the development of transportation infrastructure in an area, which is discussed in more detail in the section below.

Transportation

Transportation includes the planning, installation, and use of major and local roads, traffic lights, parking, public transportation stops, and pedestrian routes. Transportation systems in an area typically include public transit (buses, trains) and road systems (freeways, interstates, or local routes).

Transportation systems differ based on population density and the level of urbanization in an area. Appropriate transportation infrastructure and systems that adequately meet the needs of the surrounding population can reduce commute times and the amount of transportation emissions. A robust transportation system can also broaden the scope of economic opportunities available to individuals in a community.

3.3.2 Air Quality

Table 1. Relevant Laws, Policies and Guidance for Air Quality

Name	Description
<p>Clean Air Act 42 U.S.C. § 7401 (1970).</p>	<p>The Clean Air Act (CAA) regulates air emissions from stationary and mobile sources. The CAA identifies six criteria pollutants: sulfur dioxide, carbon monoxide, particulates, nitrogen dioxide, ozone, and lead. The CAA aims to protect human health and the quality of air resources.</p>

Air quality is defined as the extent to which ambient air is pollution-free. Per the EPA, ambient air is defined as “that portion of the atmosphere, external to buildings, to which the general public has access” (40 C.F.R. § 50.1(e)). Air quality can be affected by pollution emitted from stationary, mobile, and naturally occurring sources which all contribute to air pollution.¹²

As shown in the table above, air quality and air pollution in the United States and its territories is mainly regulated and controlled through the CAA. CAA key definitions include:

- A geographic area with air quality that meets the air quality standards for a pollutant is called an "attainment" area.
- Nonattainment areas are geographic areas with air quality that does not meet the air quality standards for a pollutant.
- Sources of air pollution vary based on the level of urbanization in an area. In general, urban environments are characterized by elevated levels of criteria pollutants, which can potentially reach unhealthy levels. Rural environments typically have lower levels of pollutants and generally better air quality.¹³

Clean air is a valuable environmental resource as it is necessary for people and wildlife to thrive. Exposure to air pollution (particulate matter, chemicals, and gases) has been proven to have detrimental health impacts for humans and animals.¹⁴ Human health effects that are associated with exposure to high levels of criteria pollutants include, but are not limited to, negative effects to the lungs, heart, and kidneys, as well as the nervous, immune, respiratory, and cardiovascular systems. Children, the elderly, and those with certain underlying health conditions tend to be more vulnerable to the negative health effects of criteria pollutants.¹⁵ Negative impacts to wildlife and habitat include decreased plant growth and a decrease in animal populations.¹⁶ Air

0. Affected Environment

pollution can also cause reduced visibility in human and natural environments as a result of haze.¹⁷

3.3.3 Geology, Topography, and Soils

Table 2. Relevant Laws, Policies and Guidance for Geology, Topography, and Soils

Name	Description
Farmland Protection Policy Act 7 U.S.C. § 4201 et seq. (1981).	The Farmland Protection Policy Act (FPPA) establishes protections for prime farmland, unique farmland, and land of statewide or local importance. The FPPA requires federal agencies to ensure proposed actions would not irreversibly convert farmland to nonagricultural uses. The presence of FPPA farmland triggers the requirement for a farmland conversion impact rating, which examines whether a proposed action would have significant adverse effects on FPPA farmland.

The geology and topography of an area may inform what qualifies as a suitable land use for the area. Geological and topographical factors may impact the planning, design construction, operation and maintenance of a structure proposed at a specific location.¹⁸ Soil is valued for the vital functions it performs, including sustaining plant and animal life; regulating and partitioning water flow; filtering, buffering, degrading, immobilizing, and detoxifying water and nutrients; and providing support to structures.¹⁹

Prime farmland, unique farmland, and farmland of statewide or local importance are protected under the FPPA (see [Table 2](#)). Local, state, and tribal regulations provide further support and protection for farmland resources, as well as for geology, topography, and soils more generally.

For the purposes of describing the affected environment, the geology, topography, and soils resource area is divided into geology, topography, and soils, and prime and unique farmland.

Geology, Topography, and Soils

Geology refers to the physical structure of the Earth's surface, encompassing the structure and processes that form bedrock, soil, and sediment.²⁰

Topography is the three-dimensional quality of the surface, including the features of a particular landscape or area.²¹

Soil type refers to the composition of soil, which is influenced by a variety of factors including type of sediment, unique geologic features, or erosion, and age or history of the landscape. Soil composition is characterized by layers broken into physical, chemical, biological, and morphological properties and characteristics.²²

Geologic and topographic characteristics vary by region. Variances are relevant in determining an environmental baseline as these factors influence habitat and wildlife, how environmental impacts affect the land and if the land is suitable for development. For example, an area with a severe slope or a geological area that does not have substantial bedrock will likely present more challenges for or not be feasible to use for development. Additionally, land elevation, surface features, and soils can also contribute to the ecosystem services of the area, such as the filtration

0. Affected Environment

and recharge of groundwater, or land's ability to efficiently absorb water during a precipitation event.

Prime and Unique Farmland

Prime farmland, as defined by the FPPA, is land with the best combination of physical and chemical characteristics used as cropland, pastureland, rangeland, forestland, and other lands. It does not include land already in or committed to urban development or water storage (Farmland Protection Policy Act, 7 U.S.C. § 4201 et seq. (1981).

Unique farmland is defined as having a special combination of soil quality, location, growing season, and moisture supply economically producing sustained high-quality crop when treated and managed (Farmland Protection Policy Act, 7 U.S.C. § 4201 et seq. (1981).

Farmland of statewide or local importance is defined as land that is used for the production of food, feed, fiber, forage, or oilseed crops, as determined by the appropriate State or unit of local government agency or agencies, and that the Secretary [of Agriculture] determines should be considered as farmland consistent with FPPA (Farmland Protection Policy Act, 7 U.S.C. § 4201 et seq. (1981).

Farmland holds economic, social, and cultural value in the United States. For example, the United States exported \$140 billion dollars of agricultural product in 2018, and overall agriculture and its associated industries account for 4.5% of domestic nominal gross domestic product (GDP).²³ Conversion of farmland reduces the ability of the land to support farming and agricultural production.

3.3.4 Solid and Hazardous Waste

Table 3. Relevant Laws, Policies and Guidance for Solid and Hazardous Waste

Name	Description
Comprehensive Environmental Response Compensation and Liability Act 42 U.S.C. § 9601 et seq. (1980).	The Comprehensive Environmental Response Compensation and Liability Act (CERCLA), commonly known as "Superfund", provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.
Emergency Planning and Community Right-to-Know Act 42 U.S.C. § 11001 et seq. (1986).	The Emergency Planning and Community Right-to-Know Act (EPCRA) is designed to help local communities protect public health, safety, and the environment from chemical hazards. EPCRA requires each state to appoint a State Emergency Response Commission (SERC), create Emergency Planning Districts, and name a Local Emergency Planning Committee (LEPC) for each district.
Toxic Substances Control Act 15 U.S.C. § 2601 et seq. (1976).	The Toxic Substances Control Act (TSCA) establishes reporting, record-keeping, testing requirements, and restrictions for specific chemical substances and/or mixtures including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.
Resource Conservation and Recovery Act 42 U.S.C. § 6901 et seq. (1976).	The Resource Conservation and Recovery Act (RCRA) creates a framework for management and disposal of hazardous and non-hazardous solid waste. RCRA gives the Environmental Protection Agency (EPA) authority to control the generation, transportation, treatment, storage, and disposal of solid and hazardous waste from cradle-to-grave through permitting and other regulatory

O. Affected Environment

Name	Description
	requirements. RCRA also includes detailed regulations that define what materials qualify as solid and hazardous waste, including the identification of materials that are excluded from the definitions of solid and hazardous waste. ²⁵

Proper collection, storage, transportation, and disposal of solid and hazardous waste can greatly decrease the potential for impacts to human and environmental health. Improper waste management has the potential to result in the pollution of a water supply, negative impacts to the aesthetics or health of a community, or the deterioration of wildlife habitat and soil contamination.

As shown in the table above, solid and hazardous waste is managed at the federal level through a variety of laws and policies, including policies that encourage recycling and waste reduction. Additionally, local, state, and tribal regulations detail further waste management, waste reduction, and recycling requirements, which can vary widely. In some circumstances the recycling of materials that would generally qualify as solid or hazardous waste may exempt them from being considered as waste for the purposes of compliance with solid and hazardous waste management requirements.

For the purposes of describing the affected environment, this resource area is divided into solid waste and hazardous waste.

Solid Waste

Solid waste is defined by the EPA as “any garbage or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, resulting from industrial, commercial, mining, and agricultural operations, and from community activities.”²⁴

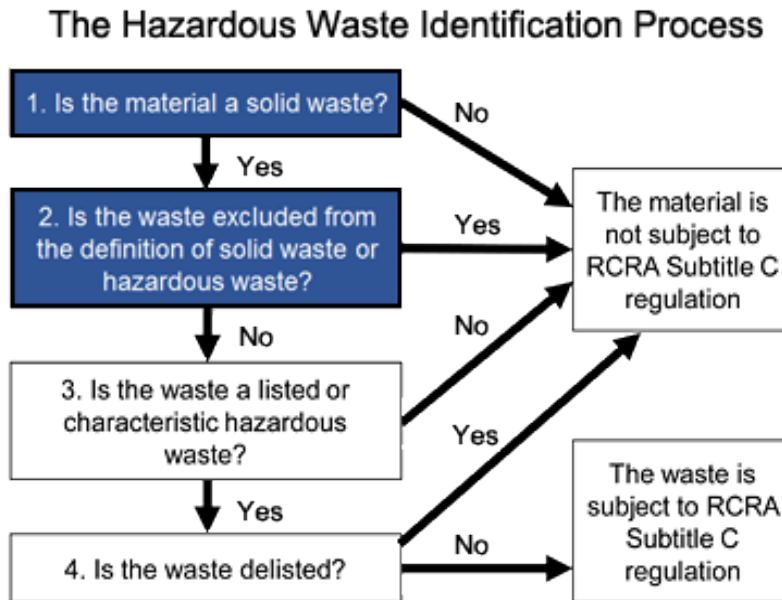
Common sources of solid waste include:

- Municipal solid waste (packaging, furniture, bottles, food scraps, paper, appliances, paint, batteries)
- Trash (metal scrap, wall board, empty containers)
- Other discarded materials that are solid, semisolid, liquid, or gases resulting from industrial, commercial, agricultural, and community activities
- Laboratory waste (non-hazardous laboratory materials, used gloves, paper trash, used forensic analysis and testing equipment)

Hazardous Waste

Hazardous waste is defined as any solid, liquid, gaseous, or semisolid waste, or any combination of wastes that poses a substantial present or potential future hazard to human health or the environment. Under RCRA, hazardous waste is a subset of solid waste; therefore, only waste that meets the RCRA definition of solid waste can be further classified as hazardous waste.²⁵ **Figure 2** shows a graphic from EPA that can be used to determine if a waste is considered hazardous waste.²⁶

Figure 2. Hazardous Waste Identification Process.²⁷



3.3.5 Energy

Table 4. Relevant Laws, Policies and Guidance for Energy

Name	Description
Energy Policy Act 42 U.S.C. § 13201 et seq. (1992).	The Energy Policy Act addresses US energy production including energy efficiency, renewable energy, oil and gas, coal, tribal energy, nuclear matters and security, vehicles and motor fuels, electricity, energy tax incentives, hydropower and geothermal energy, and climate change technology. The EPA also established goals for production of energy and energy efficiency. The EPA has been updated three times (2005, 2007, and 2009) since its original passage in 1992. Updates to the EPA since its original passage include commitments to reduce energy usage in federal buildings and purchase energy efficient products.
Energy Independence and Security Act 42 U.S.C. § 17001 et seq. (2007).	The Energy Independence and Security Act (EISA) aims to move the US toward greater energy independence and security through increased production of renewable fuels, increasing energy efficiency of products, building, and vehicles, promoting research on greenhouse gas capture and storage options, and improving the energy performance of the federal government.

Energy is defined as power derived from physical or chemical resources, that has the capacity for doing work (i.e., providing heat, or light) to enable operation of a facility or a building.²⁸ Energy consumption may be the result of operational energy to support the function of an entire building/facility or the execution of a specific activity taking place within a building/facility, or the result of energy consumed by equipment such as vehicles or construction equipment.

0. Affected Environment

Energy and energy consumption are regulated through a variety of laws and policies, including those in [Table 4](#) above. Additionally, local, state, and tribal regulations provide further support for energy management.

A continuous, reliable energy supply is essential to sustain and improve the quality of life for individuals and the overall community, including a strong economy.²⁹ Energy supports critical building utilities such as heating and cooling, internet access, lighting, and other power systems. These utilities are essential for comfortable, usable building infrastructure for all purposes, including residential, commercial, and industrial uses. Compliance with energy codes and policies helps to ensure a community’s continued energy sustainability and independence. Avoiding or reducing inefficient, wasteful, and unnecessary energy consumption can contribute to avoiding negative impacts to the surrounding community (including homes and businesses), such as electrical grid interruptions.

3.3.6 Noise

Table 5. Relevant Laws, Policies and Guidance for Noise

Name	Description
“Federal Agency Review of Selected Airport Noise Analysis Issues,” <i>Federal Interagency Committee on Noise</i> , August 1992.	Established a metric of 65 dBA (A-weighted decibel) as the maximum “acceptable” level in residential areas. This metric is used by many federal agencies in consideration of noise impacts from construction and federal projects.
“The Noise Guidebook,” U.S. Department of Housing and Urban Development, <i>Office of Environment and Energy</i> , March 2009.	Residential areas and other noise-sensitive land uses are “clearly unacceptable” in areas where the average day-night noise level (DNL) exposure exceeds 75 dBA, “normally unacceptable” in regions where the DNL is between 65 and 75 dBA, and “normally acceptable” in areas where the DNL is 65 dBA or less.
Noise Control Act 42 U.S.C. § 4901 et seq. (1972).	The Noise Control Act (NCA) established a national policy to control major sources of noise, including transportation vehicles and construction equipment. The Act also allowed the Occupational Safety and Health Administration (OSHA) to establish workplace standards for noise. Per OSHA, constant noise exposure in the workplace must not exceed 90 dBA over an eight-hour period. The highest allowable sound level to which workers can be constantly exposed to is 115 dBA, and exposure to this level must not exceed 15 minutes within an eight-hour period. The standards also limit instantaneous exposure, such as impact noise, to 140 dBA. If noise levels exceed OSHA standards, employers are required to provide hearing protection equipment that will reduce sound levels to acceptable limits. The NCA directs primary responsibility to state and local governments to address noise pollution.

Noise (or noise pollution) is defined as any sound that is undesirable because it interferes with communication, is intensive enough to damage hearing, or is otherwise annoying.³⁰ Sound is defined as a particular auditory effect produced by a given source.³¹

Noise and sound share physical aspects, but noise is considered a disturbance, while sound is defined as an auditory effect. Sound and noise levels are measured in A-weighted decibels (dBA); a-weighted refers to adjustments of frequency to represent the way we hear noise.

0. Affected Environment

As shown in **Table 5** above, noise is managed at the federal level through a variety of laws and policies. Additionally, some local governments have noise ordinances that establish maximum noise levels in certain areas or establish “quiet hours” to limit noise levels at certain times of day for different zoned areas (i.e., residential, commercial, industrial). Noise levels vary by land use. For example, urban areas generally have higher noise levels than rural areas due to traffic, industry, and infrastructure such as railway tracks and airport runways.

For humans, high noise levels are linked to serious health effects, including sleep disruption and heart disease, stress, annoyance, and noise-induced hearing loss.³² These outcomes can have significant impacts on an individual’s quality of life.

Additionally, high noise levels can negatively impact the ability of an area to be effectively used for its intended use. A “noise sensitive” facility or area is one for which quiet is an integral part of the facility/area’s function. Examples of noise sensitive facilities/areas include residential areas and some office spaces.

Furthermore, noise pollution has the potential to disrupt and adversely affect wildlife. For example, migratory birds use unique bird calls and songs to communicate, attract mates, protect young, and avoid predators.³³ Excessive noise has the potential to adversely impact the ability of the birds to communicate.

3.3.7 Water Resources

Table 6. Relevant Laws, Policies and Guidance for Water Resources

Name	Description
Safe Drinking Water Act 42 U.S.C. § 300f et seq. (1974).	The Safe Drinking Water Act (SDWA) establishes standards for drinking water quality to ensure safe drinking water for the public.
Clean Water Act 33 U.S.C. § 1251 et seq. (1972).	The Clean Water Act (CWA) regulates water quality of all discharges into “waters of the United States”. The CWA establishes permit programs to regulate and restrict pollution from both singular (defined under CWA as “point source”) and multiple (defined under CWA as “non-point”) sources. The National Pollutant Discharge Elimination System (NPDES) Permit Program regulates point source pollution (e.g., pipes, facilities, or man-made ditches) while non-point source pollution is regulated through state permit programs.
Wild and Scenic Rivers Act 16 U.S.C. § 1271 et seq. (1968).	The Wild and Scenic Rivers Act (WSRA) created the National Wild and Scenic Rivers System. WSRA provides for the protection, preservation, and enhancement of designated wild and scenic rivers by prohibiting or restricting uses that would affect the river’s “free-flowing” condition.
Coastal Zone Management Act 16 U.S.C. § 1451 et seq. (1972).	The Coastal Zone Management Act (CZMA) provides for the management of coastal resources (marine resources, wildlife, and nutrient-rich areas) in coastal and Great Lakes states, with the objective of preventing additional loss of living marine resources and wildlife; alterations in ecological systems; and decreases in undeveloped areas available for public use.
Coastal Barrier Resources Act 16 U.S.C. § 3501 et seq. (1982).	The Coastal Barrier Resources Act (CBRA) serves to protect coastal barriers and resources along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts as part of the Coastal Barrier Resources System (CBRS).

O. Affected Environment

Name	Description
Protection of Wetlands Exec. Order No. 11990, 42 Fed. Reg. 26961 (May 24, 1977).	E.O. 11990 requires federal agencies to consider alternatives to wetland sites when planning an action, and to limit potential damage if an activity affecting a wetland cannot be avoided.
Floodplain Management Exec. Order No. 11988, 42 Fed. Reg. 26951 (May 24, 1977).	E.O. 11988 requires federal agencies to ensure proposed actions will not adversely affect floodplains, and to avoid development in floodplains wherever there is a practicable alternative. E.O. 11988 establishes an 8-step decision making process that agencies use when considering actions with the potential to affect or impact floodplains.
Establishing a Federal Flood Risk Management Standard Exec. Order No. 13690, 80 Fed. Reg. 6425 (January 30, 2015).	E.O. 13690 establishes the Federal Flood Risk Management Standard (Standard). The Standard requires that agencies expand management from the current base flood level to a more protective standard to address current and future flood risk to ensure that projects funded with taxpayer dollars last as long as intended.
DOJ Floodplain Management and Wetland Protection Procedures 28 C.F.R. § 63.6. (July 30, 1980).	DOJ procedures for floodplain management and wetland protection are to implement Executive Orders 11988 and 11990. DOJ procedures contain a review process to determine if a project would have adverse impacts to floodplains or would directly or indirectly support floodplain development.

Water resources encompass all surface and ground waters, such as floodplains, wetlands, lakes, ponds, and rivers.

Water resources are valued for their aesthetic, recreational, economic, and ecological properties. Clean water is essential for all living organisms to survive.³⁴ Water resources, their quantity, and quality, are determined by a variety of factors including geographic region, local climate, geology, topography, and soils. Based on these factors and others, water resources have differing physical, chemical, and biological characteristics, and hydrologic properties.³⁵

As shown in [Table 6](#) above, water resources are managed throughout the US and its territories through laws and policies that manage water bodies such as aquifers, springs, streams, rivers, lakes, reservoirs, estuaries, and coastal water resources.

For the purposes of describing the affected environment, water resources are divided into water quality, floodplains, wetlands, surface water, groundwater, and federally protected water resources.

Water Quality

Water quality is defined as the physical, chemical, and biological characteristics of water, usually with respect to its suitability for a particular purpose (such as for drinking or supporting wildlife).³⁶ The presence of contaminants, such as increased sediment, can impact a body of water's water quality. The SDWA defines a contaminant as any physical, chemical, biological, or radiological substance or matter in the water. Contaminants may enter a water resource via point or non-point sources. Point sources are discrete sources of discharge such as pipes or man-made ditches, whereas non-point sources are diffuse sources of discharge such as stormwater runoff from a developed area, construction site, or agricultural field.³⁷ Water quality can be directly influenced by water quantity, as a decrease in water quantity allows contaminants to concentrate in the smaller amount of water that remains.³⁸

0. Affected Environment

Water resources provide a variety of purposes dependent on a waterbody's particular use, including drinking water, recreation and scenic enjoyment, industrial and domestic use, and ecological services in supporting wildlife and their habitats.

Floodplains

Floodplains are areas of land surrounding rivers and streams, which serve to absorb and dissipate water and are susceptible to being inundated by floodwaters during a flood event.³⁹ E.O. 13690 outlines three potential approaches for defining floodplain elevation and flood hazard area:

1. **Climate-informed Science Approach** – The elevation and flood hazard area that result from using a climate-informed science approach that uses the best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science.
2. **Freeboard Value Approach** – The elevation and flood hazard area that result from using the freeboard value, reached by adding an additional 2 feet to the base flood elevation for non-critical actions and from adding an additional 3 feet to the base flood elevation for critical actions.
3. **0.2-percent-annual-chance Flood Approach** – The area subject to flooding by the 0.2-percent-annual-chance flood.

Floodplains provide crucial support and habitat for wildlife, aquatic species, and agriculture. Additionally, floodplains provide protection to human infrastructure from flooding by absorbing and dissipating excess water.⁴⁰

Critical Facilities and OJP-Funded Activities

Critical facilities are a category of buildings that provide a service or purpose for which even a slight chance of flooding is too great a threat. FEMA identifies typical critical facilities as including (but not limited to), fire stations, police stations and storage of critical records. Critical facilities also include structures that store highly hazardous substances or materials. It is within OJP's scope to fund program activities and construction work at police stations and other potential critical facilities. If a Proposed Action involves a building that qualifies as a critical facility, this qualifies the Proposed Action as a critical action under E.O. 13690.

Wetlands

Wetlands are areas inundated or saturated by surface or groundwater (swamps, marshes, bogs, and other similar areas). Wetlands are highly productive and important ecosystems that support vegetation, aquatic species, and wildlife that are adapted for life in saturated soil conditions. Wetlands have important ecological functions and are a biologically diverse habitat. They bring in nutrients from surrounding surface waters, remove sediment and pollutants from stormwater, and act as a buffer for coastal areas and shorelines against wind, waves, and storms.⁴¹ Highly developed urban areas are less likely to be in close proximity to wetland resources compared to less developed, rural areas.

0. Affected Environment

Surface Water

Surface water includes all inland lakes, streams, rivers, reservoirs, and wetlands. Surface water bodies serve a variety of uses including habitat to plant and animal species, drinking water, recreation, and irrigation.⁴²

Groundwater

Groundwater is fresh water from rain, melting ice, or snow that soaks into the soil and is stored underground in aquifers. Groundwater serves a variety of uses including providing drinking water and irrigation through public or private wells, aquifers, and other sources.⁴³

Groundwater levels vary throughout the country based on precipitation levels and the rate at which groundwater is extracted and used, as well as naturally occurring variability. In order to not exhaust a particular groundwater resource, groundwater requires “recharging.” This is the process by which an aquifer is replenished by precipitation absorbing into the ground and returning to aquifers. Excessive extraction of groundwater can lead to reduced water supply, subsidence (sinking of land), and adverse effects on groundwater-dependent ecosystems.⁴⁴

Federally Protected Water Resources

For the purposes of this analysis, federally protected water resources include CBRS units, designated Coastal Zones, Wild and Scenic Rivers and Nationwide Rivers Inventory (NRI) Rivers. Highly developed urban areas are less likely to be in close proximity to federally protected water resources compared to less developed, rural areas.

The CBRS is comprised of largely undeveloped coastal barriers located along the Gulf of Mexico, the Atlantic Ocean, the Great Lakes, and the Caribbean Sea. Coastal barriers consist primarily of unconsolidated sediment and provide important habitat for wildlife, migratory birds, and aquatic species. Coastal barriers are generally adjacent to and help to protect wetlands, marshes, estuaries, inlets, and nearshore water habitats. Protection of these adjacent habitats further adds to the ecological value of coastal barrier resources. Coastal barriers also provide vital protection against coastal storms and erosion.⁴⁵

The Coastal Zone includes all territorial U.S. waters and adjacent land areas. The coastal zone includes beaches, islands, salt marshes, and wetlands, and some adjacent inlands. Each state designates the area of land and water resources that are included in their coastal zone and is regulated by a state coastal zone management program.⁴⁶ This designation of coastal zones at the state level also determines the specific values a designated coastal zone has that have been identified as needing protection. Coastal zones may have natural, commercial, recreational, ecological, industrial, and aesthetic value.⁴⁷

The National Wild and Scenic River System rivers are classified as wild, scenic, or recreational:

- **Wild River Areas** are rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.

O. Affected Environment

- **Scenic River Areas** are rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- **Recreational River Areas** are rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.⁴⁸

NRI river segments possess one or more outstandingly remarkable values, which include scenic, recreation, fish and wildlife, and other values.⁴⁹

3.3.8 Biological Resources

Table 7. Relevant Laws, Policies and Guidance for Biological Resources

Name	Description
Marine Mammal Protection Act 16 U.S.C. § 1531 et seq. (1972).	The Marine Mammal Protection Act (MMPA) establishes protections for marine mammals within US waters and prohibits illegal “take” (defined as: to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill) of marine mammals without proper permits.
Endangered Species Act 16 U.S.C. § 1361 et seq. (1973).	The Endangered Species Act (ESA) protects endangered and threatened species and their habitats. It is illegal to “take” an ESA- listed species or adversely impact any part of a listed species’ designated critical habitat. States may also list endangered or threatened species. Tribal lands are not subject to ESA, but Secretarial Order #3206 clarifies responsibilities of the Department of Commerce (DOC) and Department of the Interior (DOI) regarding how implementation of the ESA affects, or may affect, Indian lands, tribal trust resources, or the exercise of tribal rights.
Magnuson-Stevens Fishery Conservation and Management Act 16 U.S.C. § 1801 et seq. (1976).	The Magnuson-Stevens Act (MSA) governs fisheries management in US waters. Under MSA, fisheries must comply with a wide range of conservation and fisheries management requirements to ensure a safe and sustainable supply of seafood.
Bald and Golden Eagle Protection Act 16 U.S.C. § 668 et seq. (1940).	The Bald and Golden Eagle Protection Act (BGEPA) provides protection for the bald eagle and the golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, export, import of the species, alive or dead, including any part, nest, or egg, unless under the terms of a valid federal permit.
Migratory Bird Treaty Act 16 U.S.C. § 703-712 (1918).	The Migratory Bird Treaty Act (MBTA) implements four international conservation treaties that the United States entered into with Canada, Mexico, Japan, and Russia. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service.
Federal Noxious Weed Act 7 U.S.C. § 2801 et seq. (1974).	The Federal Noxious Weed Act (FNWA) establishes a federal program under the Secretary of Agriculture to declare and control the spread of noxious weeds and to limit interstate spread of such plants.

Biological resources are valued for their intrinsic, aesthetic, economic, and recreational qualities.⁵⁰ Highly developed urban areas are less likely to have existing biological resources compared to less developed, rural areas.

As shown in the table above, biological resources are managed at the federal level through a variety of laws and policies. Local, state, and tribal regulations provide further support and protection for biological resources.

0. Affected Environment

For the purposes of describing the affected environment, biological resources are divided into vegetation, wildlife and habitat, and federally protected species.

Vegetation

Vegetation is defined as a plant species found in a particular area or habitat, including native and introduced species and invasive and noxious species that characterize a region. Vegetation varies based on soil, climate, altitude, frequency and intensity of natural forest fires, and human intervention.⁵¹

As a biological resource, vegetation is valued for its interaction with and support of all aspects of an ecosystem including supporting soil growth, serving as habitat for wildlife, and absorbing excess precipitation and water from natural and human-made runoff and flooding.

Wildlife and Habitat

Wildlife is defined as any animal species (mammal, bird, amphibian, reptile, invertebrate, fish, and shellfish) that is either native or introduced and is characteristic of a region.⁵² Habitats are defined as environments or ecosystems that provide food, water, shelter (trees, shrubs, vegetation), and space to support the needs of wildlife, and provide ecological functions such as water purification and nutrient cycling.⁵³

As detailed in the definitions provided above, what constitutes wildlife and habitat is very broad. The classification only requires the presence of animal species that are characteristic of a region and their associated environments. Therefore, the type and quality of value that wildlife and habitat contribute can vary widely. Areas of potential value wildlife and habitat may possess include cultural, aesthetic, social, economic, recreational, historic, and ecological value. The type and degree of value may depend on a myriad of factors such as its connectivity to other habitat, if it is used frequently for human recreation or if it provides resources that are economically valuable.

Federally Protected Species

Under the ESA, an endangered species is defined as any species in danger of extinction “throughout all or a significant portion of its range” (Endangered Species Act, 16 U.S.C. § 1531 et seq. (1973)). A threatened species is any species “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range” (Endangered Species Act, 16 U.S.C. § 1531 et seq. (1973)). Critical habitats are “geographic areas that contain physical/biological features essential to the conservation of the species” (Endangered Species Act, 16 U.S.C. § 1531 et seq. (1973)). Threatened and endangered species are referred to as T&E species.

While species loss occurs naturally, the current rate of extinction today is far more rapid than any other time in history. Due in large part to loss of critical habitat, species are dying off at unprecedented rates, leaving gaps in ecosystems. It is often not fully known how the extinction of a specific species will affect other members of its ecosystem, but the removal of a single species can set off a chain reaction affecting many other species and the health of the ecosystem as a whole. In addition to ecological value, federally protected species may also hold significant cultural, aesthetic, social, economic, recreational, and historic value.⁵⁴

O. Affected Environment

Under the MBTA a migratory bird is any bird, whatever its origin and whether or not raised in captivity, which belongs to a species listed in 50 C.F.R. § 10.13, or which is a mutation or a hybrid of any such species, including any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof. Migratory birds provide ecosystem benefits that include pest control and pollination of plants and serve as food sources for other wildlife.⁵⁵

3.3.9 Cultural Resources

Table 8. Relevant Laws, Policies and Guidance for Cultural Resources

Name	Description
National Historic Preservation Act 54 U.S.C. § 300101 et seq. (2014).	The National Historic Preservation Act (NHPA) was created to acknowledge the importance of protecting our nation's heritage. Section 106 of the NHPA requires federal agencies to consider the impacts of federally funded projects, activities, or programs on historic and cultural resources.
Native American Graves Protection and Repatriation Act 25 U.S.C. § 3001 et seq. (1990).	The Native American Graves Protection and Repatriation Act (NAGPRA) specifies ownership and control of Native American cultural items that are excavated or discovered on federal or tribal lands. Under NAGPRA, cultural items refer to Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony.
Archaeological Resources Protection Act 16 U.S.C. § 470aa-470mm (1979).	The Archaeological Resources Protection Act (ARPA) was enacted to secure the protection of archaeological resources and sites on public and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals.

Cultural resources can be defined as “physical evidence or place of past human activity: site, object, landscape, structure; or a site, structure, landscape, object or natural feature of significance to a group of people traditionally associated with it.”⁵⁶ Cultural resources have economic, educational, social, and historic value for local communities, tribes, and the Nation. Cultural resources provide an insight into the past, attract tourists, offer a sense of place for community members, and provide a gathering place.⁵⁷

As shown in the table above, cultural resources are protected at the federal level through a variety of laws and policies. Additionally, local, state, and tribal regulations provide further support and protection of cultural resources.

For the purposes of describing the affected environment, cultural resources are divided into historic structures and archaeological resources.

Historic Structures

Historic structures include structures, buildings, objects, or collections of properties (as in a historic district) designated under the NHPA (National Historic Preservation Act, 54 U.S.C. § 306101 et seq. (2014)). NHPA historic structures typically are associated with a significant person, event, or theme in American history, or they provide important information about the past. Historic structures can be significant at the national, state, territorial, tribal, or local level. A structure or property must, generally, be at least 50 years old to be deemed historic.⁵⁸

0. Affected Environment

Historic structures represent irreplaceable community history and heritage which provides cultural, educational, and aesthetic value. The preservation of historic structures and districts (as well as development patterns) allow places and communities to maintain their unique sense of place, which can attribute to community spirit and resiliency.

Archaeological Resources

Archaeological resources are evidence of past human activity which can be found on the surface or below ground. Common archaeological resources include, but are not limited to: pottery, basketry, bottles, weapons, weapon projectiles, tools, rock paintings or carvings, graves, and human skeletal materials. Archaeological resources can also include districts, sites, buildings, or structures which show evidence of human life and culture (Native American Graves Protection and Repatriation Act, 25 U.S.C. § 3001 et seq. (1990)).

Archaeological resources may hold a cultural or religious importance to tribes, NHOs, Alaska Natives, or the public in general. Archaeological resources are of the most cultural and historical value when they remain undisturbed and in place. Once disturbed, the context and the cultural resource is lost forever. When trained professionals excavate a site, they ensure no significant information is lost. The resources remain available for research, education, and interpretation.⁵⁹

3.3.10 Aesthetics

There are no overarching federal requirements governing aesthetics as these characteristics vary substantially by location. Local entities may regulate aesthetics of an area through entities such as design review boards.

Aesthetics includes the visual environment of an area, including natural and artificial landscape features that make up a view. A landscape's visual environment considers its visual character and visual quality.

- The visual character of a landscape refers to landscape elements and features (buildings, landscaping, and vegetation) and the qualities of these elements, such as the size and height of buildings, dominant features in the area, and other elements like roads and highways.
- The visual quality of an area refers to the uniformity and intactness of the landscape character. Uniformity can refer to how building heights, styles, and signage vary.

Generally, higher visual quality and character denotes higher aesthetic value. Public preference and public opinions regarding a landscape also factor into an area's visual character and visual quality. The aesthetics of an area can be of high value to the affected community. Maintaining or improving the aesthetics of an area can maintain or allow for a greater sense of place and improve the appreciation and enjoyment of an area.

O. Affected Environment

3.3.11 Workplace Safety and Health

Table 9. Relevant Laws, Policies and Guidance for Workplace Safety and Health

Name	Description
Occupational Safety and Health Act 29 U.S.C. § 651 et seq. (1970).	The Occupational Safety and Health Act is a labor law governing occupational health and safety in the private sector and federal government. Its main goal is to ensure that employers provide employees with an environment free from recognized hazards. The Act created the OSHA under the US Department of Labor and the National Institute for Occupational Safety and Health.

Occupational safety and health refers to the health, safety, and welfare of people at work (Occupational Safety and Health Act, 29 U.S.C. § 651 et seq. (1970)).

As discussed in [Table 9](#), the Occupational Safety and Health Act created the OSHA, which is responsible for ensuring employees throughout the United States work in a safe and healthful environment. A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage.⁶⁰

3.3.12 Environmental Justice

Table 10. Relevant Laws, Policies and Guidance for Environmental Justice

Name	Description
Revitalizing Our Nation’s Commitment to Environmental Justice for All Exec. Order No. 14096, 88 Fed. Reg. 25251 (April 21, 2023).	E.O. 14096 directs federal agencies to carry out environmental reviews under NEPA in a manner that: analyzes direct, indirect, and cumulative effects of Federal actions on communities with environmental justice concerns; considers best available science and information on any disparate health effects (including risks) arising from exposure to pollution and other environmental hazards, such as information related to the race, national origin, socioeconomic age, disability, and sex of the individuals exposed; and provides opportunities for early and meaningful involvement in the environmental review process by communities with environmental justice concerns potentially affected by a proposed action.
Federal Actions to Address Environmental Justice Exec. Order No. 12898, 59 Fed. Reg. 7629 (February 16, 1994)	E.O. 12898 directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The order also directs each agency to develop a strategy for implementing environmental justice. The order is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.
“Department of Justice Guidance Concerning Environmental Justice,” U.S. Department of Justice, December 2014.	DOJ’s Environmental Justice Strategy and accompanying guidance provides a framework for coordination on environmental justice and procedures for identifying environmental justice issues. The three main components of the Strategy are 1) policies for law enforcement; 2) mediation, advice, counsel, and outreach policies; and 3) education and training on environmental justice issues.

E.O. 14096 defines environmental justice as “the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the

O. Affected Environment

environment so that people: (i) are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and (ii) to have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.” Environmental justice ensures that any potential environmental threats to the health and livelihood of a community are not disproportionately felt by low income and/or minority populations that are historically disenfranchised and more vulnerable.

EPA has identified four key environmental justice areas for which EPA has existing measures, programs, and actions to achieve progress. These key areas are: 1) eliminating disparities in childhood blood lead levels, 2) ensuring all people served by community water systems have drinking water that meets applicable health-based standards, 3) achieving air quality that meets the fine particle pollution National Ambient Air Quality Standards (NAAQS) in all areas of the country, and 4) reducing human exposure to contamination at hazardous waste sites.⁶¹

Per the US Census, a minority population exists where the percentage of one or more groups of minorities in an affected area exceeds 50 percent (%) or is meaningfully greater than the area’s general population. Additionally, the US Census defines “low-income population” as a population where 40% or more of the population is living below the federal poverty threshold.

In establishing affected environment for the purposes of environmental justice, it is important to consider national demographic data such as income levels and population data.⁶² **Table 11** shows percentage of low income and minority populations in the United States by geographic region.

Table 11. Poverty Rates and Minority Populations by US Census Area

Census Area	Poverty rate (of total population) ⁶³	Minority population (% of total population) ⁶⁴
Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont)	10.1%	26.5%
Midwest (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin)	10.1%	22.8%
West (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming)	10.6%	39.6%
South (Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia)	13.3%	38.9%

3.4 OJP Funded Activities and Federally Recognized Tribes

Table 12. Relevant Laws, Policies and Guidance for Working with Federally Recognized Tribes

Name	Description
Consultation and Coordination with Indian Tribal Governments Exec. Order No. 13175, 65 Fed. Reg. 67249 (November 6, 2000).	E.O. 13175 established a government-to-government relationship with tribes and requires the federal government to recognize the right of Indian tribes to self-govern. This E.O. requires that the federal government consult tribes and grant tribes discretion on policy whenever possible.
Presidential Memorandum on Uniform Standards for Tribal Consultation, November 30, 2022	The Presidential Memorandum establishes uniform standards to be implemented across all federal agencies regarding how Tribal consultations are conducted.
Attorney General Guidelines Stating Principles for Working with Federally Recognized Indian Tribes 79 Fed. Reg. 73905 (December 12, 2014)	This DOJ statement of principles was developed to guide and inform all of the Department’s interactions with federally recognized Indian tribes.
Department of Justice Policy Statement on Tribal Consultation, November 30, 2022	This policy implements the requirements of E.O. 13175, the Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships, signed on January 26, 2021, and the Memorandum on Uniform Standards for Tribal Consultation, signed on November 30, 2022, and provides the Department of Justice guidance on the formal process through which the DOJ seeks Tribal input regarding the development of new or amended policies, regulations, and legislative actions initiated by the Department.

As discussed in Chapter 1, one of the priorities of OJP’s funding programs is advancing OJP-funded tribal justice activities. OJP is regularly involved with federally recognized tribes for the purposes of carrying out OJP-funded activities. Federally recognized tribes may be engaged with OJP-funded activities as recipients of funding for activities or as consulting entities. OJP understands its special responsibility to engage with tribes in a government-to-government relationship.

Typical OJP-funded activities within the scope of this PEA that may take place on tribal land or otherwise involve tribes is generally limited to construction activities. Federally recognized tribes have unique sovereignty, land rights and governing laws which may have implications for resource areas that are considered and discussed throughout [Section 3.3](#) of this Chapter. The potential implications of each resource area need to be considered on a case-by-case basis for projects. Some examples of resource areas and tribal-specific implications that may need to be considered during analysis include the following:

- Land Use:** Tribal lands may be in locations that are in proximity to urban areas and well developed. However, some tribal lands may be in areas that are remote and not significantly developed. A tribal community may not have formal zoning ordinances to be considered when considering potential impacts of a proposed project, but potential land use impacts must still be considered.
- Biological Resources:** Wildlife can hold cultural significance, economic value, or provide sustenance for tribes. Many tribes engage in hunting for ceremonial reasons or

0. Affected Environment

subsistence purposes. Several tribal communities have unique hunting rights for wildlife in areas including Alaska and the Northwest.

- **Environmental Justice:** E.O. 12898 requires consideration of environmental justice concerns for federal projects in the United States and its territories. E.O. 14096 requires early and meaningful involvement in the environmental review process by communities with environmental justice concerns potentially affected by a proposed action. These E.O.s makes it clear that their provisions apply fully to programs involving Native Americans.
- **Cultural Resources:** Tribes are generally the most knowledgeable on potential archaeological resources that may be present on their lands. The Tribal Historic Preservation Officer (THPO) is the point of contact when a proposed project presents the potential to result in impacts to tribal cultural resources.

Tribes as Consulting Entities Under Section 106 of the NHPA

Most commonly, a tribe may be involved with the NEPA process of a proposed OJP-funded activity in the role of an applicant that is receiving funding from OJP. However, there may be circumstances where a tribe is not the direct recipient of funding, but a project is proposed to take place on or otherwise have the potential to impact tribal land or land that has cultural or religious significance to a tribe. In this situation, a tribe is engaged in the NEPA process as a consulting entity under Section 106 of the NHPA.

The above list and accompanying discussions are not exhaustive for tribal-specific considerations. As stated above, the potential implications of each resource area need to be considered on a case-by-case basis for tribal projects.

Chapter 4. Impacts Analysis

4.1 Resource Area Significance Criteria

This analysis in the PEA considers the potential for proposed OJP-funded activities to lead to impacts in every resource area discussed in [Chapter 3](#). The potential significance of impacts of each resource area is based on the context and intensity of the potential impact, which depends on a variety of factors that differ depending on the specific resource area that is being considered. Therefore, separate significance criteria are defined for each resource area to inform the analysis. Since significance is defined by context and intensity and not quantitatively, defining significance criteria provides parameters to consider in analysis to ensure determination of significance is being applied consistently for all proposed actions considered under the PEA.

Table 13. Resource Area Significance Criteria

Land Use
Zoning: Impacts would be considered significant if the proposed activity conflicted with any local, state, or federal land use plans or local zoning regulations.
Transportation: Impacts would be considered significant if a proposed activity led to a traffic increase or change would permanently upset the normal flow of traffic or require the expansion of existing public transit systems, existing roadways, or transportation facilities (parking structures or areas), the repair of an existing major road, or the establishment of a new major road.
Air Quality
Impacts would be considered significant if proposed activities generated emissions that exceed the de minimis threshold of the NAAQS established under the CAA or led to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS.
Geology, Topography, and Soils
Geology, Topography, and Soils: Impacts would be considered significant if proposed activities led to substantial erosion or loss of topsoil that significantly reduced vegetation or soil function.
Prime and Unique Farmland: Impacts would be considered significant if they exceed an allowable level (over 160 points) based on Form AD-1006 (the Farmland Conversion Impact Rating) or if they exceed any state or tribal farmland regulatory thresholds.
Solid and Hazardous Waste
Impacts would be considered significant if solid or hazardous waste is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements (this includes ensuring the waste facilities that will be used have adequate capacity to accommodate for the volume of waste that is produced).
Energy
Impacts would be considered significant if proposed activities led to a significant increase in energy consumption as compared to existing energy consumption, or if energy requirements exceed an area’s available energy supply as defined and established by local, municipal, county, or metropolitan region’s energy codes and policies.
Noise
Impacts would be considered significant if proposed activities generated noise that led to prolonged exposure of people, or noise sensitive areas/facilities that violated applicable local, state, or federal noise regulations.
Water Resources
Water Quality: Impacts would be considered significant if a proposed activity directly or indirectly released contaminants into nearby waterbodies, that exceed state, tribal, or federal Water Quality Standards (WQS), or violate Total Maximum Daily Load (TMDL) targets.
Floodplains: Impacts would be considered significant if a proposed activity directly or indirectly altered a floodplain enough to present a substantial increased flood danger to the area or if the proposed activity is noncompliant with applicable state or local floodplain ordinances, or federal requirements (such as under E.O. 11988 and E.O. 13690).

Chapter 4. Impacts Analysis

Wetlands: Impacts would be considered significant if a proposed activity led to direct or indirect impacts that triggers avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA.*
Surface Water: Impacts would be considered significant if proposed activities led to contamination of surface water or significant changes in the availability of surface water.
Groundwater: Impacts would be considered significant if proposed activities led to significant changes in groundwater discharge or recharge patterns, contamination of groundwater, or significant changes in the availability of groundwater.
Federally protected waters: Impacts would be considered significant if proposed activities violated applicable state, tribal, or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers).
Biological Resources
Vegetation: Impacts would be considered significant if proposed activities led to the introduction of invasive or exotic species, or significant disturbance or permanent loss of natural vegetation communities. For the purposes of this analysis, significant disturbance is defined as removal of topsoil or vegetation or land clearing activities (clearing, land levelling, excavating, laying asphalt or concrete, or transporting and filling of land) that lead to long term impacts to the local ecosystem or community.
Wildlife and Habitat: Impacts would be considered significant if proposed activities disrupted or disturbed nearby wildlife populations for a prolonged period of time, over a large area, or impacted a particularly sensitive or valuable wildlife or habitat resource with permanent implications. Impacts would also be considered significant if proposed activities violated local, state, tribal, or federal regulations which protect wildlife and their habitats.
Federally Protected Species: Impacts would be considered significant if proposed activities resulted in the take of a migratory bird or T&E species or led to impacts to the critical habitat of a T&E species.
Cultural Resources
Historic Structures: Impacts would be considered significant if proposed activities led to impacts that, directly or indirectly, diminish the structure's historic integrity or significance or equate to an "adverse effect" determination under Section 106 of the NHPA.
Archaeological Resources: Impacts would be considered significant if proposed activities led to impacts that directly or indirectly diminish the resource's integrity or historic or cultural significance or equate to an "adverse effect" determination under Section 106 of the NHPA.
Aesthetics
Impacts would be considered significant if proposed activities significantly degraded or altered the visual character of the Area of Potential Effect (APE)**, or substantially lowered the visual quality of the APE.
Workplace Safety and Health
Impacts would be considered significant if proposed activities violated OSHA's General Duty Clause or other OSHA workplace safety and health standards and regulations applicable to the activities type or activity or posed an immediate threat to the health and safety of the workers or public.
Environmental Justice
Impacts would be considered significant if proposed activities led to disproportionately high and adverse human health or environmental effects on communities with environmental justice concerns, pursuant to E.O. 14096.

*Compensatory mitigation (for the purposes of Section 404 of the CWA) means: restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances, preservation of wetlands, streams, and other aquatic resources. The purpose of compensatory mitigation is to offset unavoidable adverse impacts which remain after all appropriate and practicable: avoidance, and minimization has been achieved (40 CFR Part 230).

**For aesthetics, the APE is the geographic and/or spatial area that has the potential to be aesthetically impacted by the proposed activity.

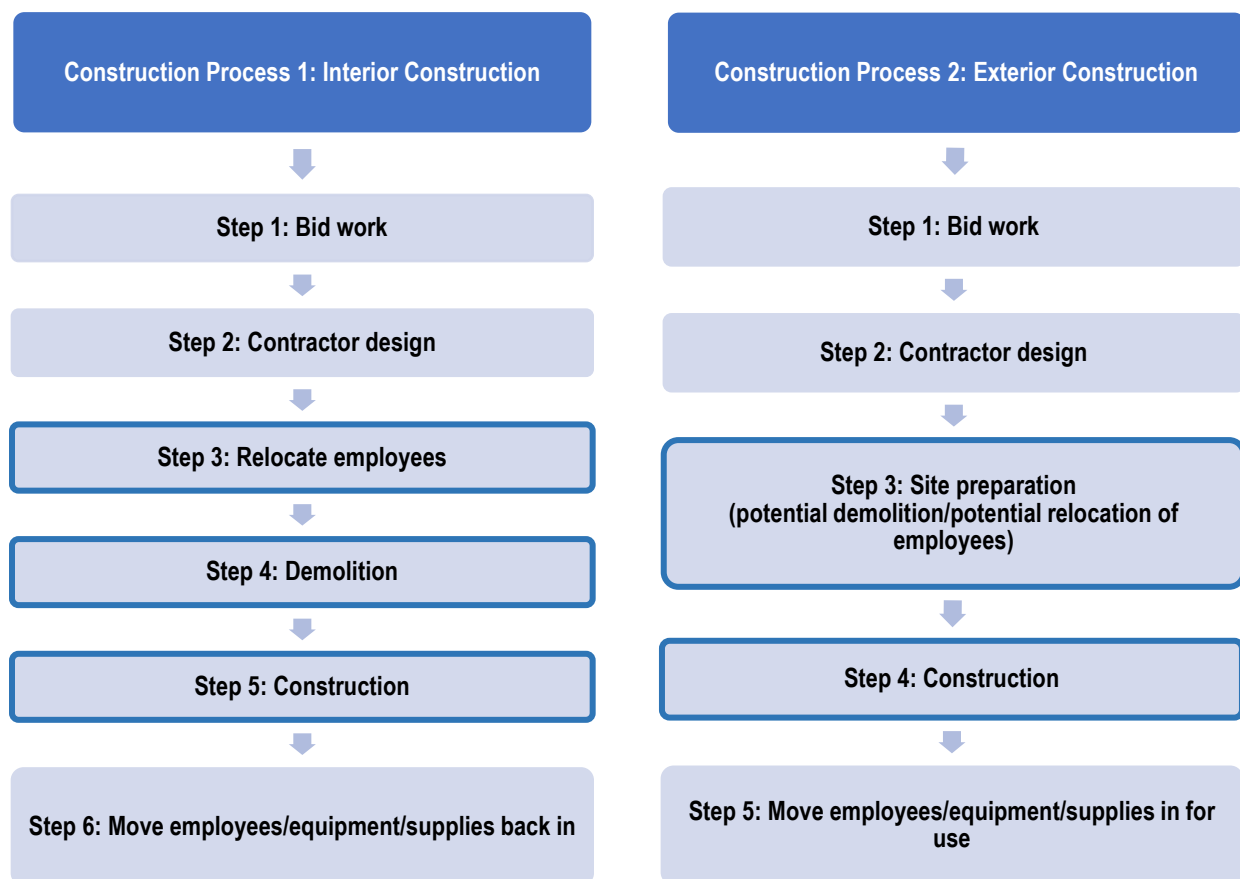
4.2 Construction Impacts

OJP funds both interior construction and exterior construction activities. Construction activities may involve minor renovations, new construction, or expansion of buildings and/or building systems. OJP-funded construction activities range from minor renovations on a single floor of an existing lab facility to accommodate changing needs, to introducing a prefabricated office trailer adjacent to an existing facility, to completing new construction of an office building, research facility or firing range.

- **Interior construction activities** take place indoors, typically use small hand tools rather than large equipment, and involve small-scale demolition and construction.
- **Exterior construction activities** involve larger construction equipment and vehicles and more extensive site preparation and construction.

Figure 3 outlines the process for both types of construction activities typically funded by OJP: interior construction and exterior construction. Both interior and exterior construction begin with a bid process (Step 1) and contractor design (Step 2) but differ in subsequent steps.

Figure 3. Typical OJP-Funded Construction Process



Chapter 4. Impacts Analysis: 4.2 Construction Impacts

The third step in the **Interior Construction** process entails relocating employees within the existing building or campus. Next, the demolition process occurs and typically involves the removal of walls, electrical fixtures, furniture, ceiling and flooring materials, and equipment (for example, in interior construction the HVAC system is sometimes replaced or expanded for additional capacity). The fifth step is construction and typically involves installing walls, electrical fixtures, furniture, ceiling and floor materials, and equipment. Subsequently, employees, equipment, and supplies are moved back in. The relocation of employees (Step 3), demolition (Step 4) and construction (Step 5) have the potential for impacts.

In the **Exterior Construction** process, the third step is site preparation; this can involve, for example, leveling ground and removing vegetation to allow access for construction equipment and vehicles. In rare instances when exterior construction projects involve demolition, site preparation could also include the relocation of employees in the structure slated for demolition, and the demolition itself. The fourth step is construction, which typically involves installing a foundation, walls, electrical fixtures, furniture, ceiling and floor materials, and equipment similar to the Interior Construction process, but also may involve adding prefabricated structures such as an office trailer. Subsequently, employees, equipment, and supplies are moved into the new space for use. Site preparation (Step 3) and construction (Step 4) have the potential for impacts.

Potential impacts for interior and exterior construction activities are discussed in more detail in the resource area sections below (**Section 4.2.1**). Interior and exterior construction activities are analyzed separately except where impacts are similar across both types of construction activities. The impacts analysis of proposed construction projects must consider potential impacts from 1) the construction process and 2) future operations. The analysis in this section is limited to potential impacts from the construction process; the analysis of potential impacts from long-term operation of facilities can be found in the other activity types analyzed in **Chapter 4** and should be considered in addition to construction impacts, when applicable.

Table 15 is provided at the end of this impacts section listing **Requirements for Further Analysis and Mitigation Measures**. If an individual activity being considered for funding or implementation triggers further analysis, the resource impacts may be mitigated by the mitigation measures listed in the table. If the activity under consideration is not covered by this PEA, a separate categorical exclusion (CATEX) determination, EA, or EIS will be required.

4.2.1 Analysis of Resource Areas

The following section considers the potential impacts for construction activities for all resource areas. No resource areas were dismissed from analysis for construction activities.

Land Use

This section discusses zoning and transportation impacts.

Zoning

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to zoning.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

PROPOSED ACTION

Interior construction activities take place inside existing space and would not likely conflict with local, state, or federal land use plans or local zoning regulations unless activities changed the use of the existing space. Change in use of space is unlikely, as typical interior construction activities are for the purpose of finishing or updating existing spaces central to ongoing operations at the facility. Most OJP-funded exterior construction activities are associated with an existing operation that the area is properly zoned for.

Factors that influence significance include if any local plans designate incompatible future uses in the area or if the proposed construction would add new operations beyond what the property is currently zoned for. These factors are also detailed in **Table 15** included at the end of **Section 4.2.2**. With the application of best management practices and mitigation measures when needed, interior and exterior construction activities are not expected to conflict with any local, state, or federal land use plans or local zoning regulations. Therefore, no significant zoning impacts are anticipated from interior and exterior construction activities.

Transportation

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to transportation.

PROPOSED ACTION

Interior and exterior construction activities are analyzed together for this resource area because they are expected to have similar transportation impacts. Construction activities are not expected to result in long-term transportation impacts as they typically occur in areas with existing roads capable of managing the traffic flow to and from the activity site and do not require the establishment of new roads or the need for major road repair as part of the construction activity. Interior and exterior construction activities could lead to temporary transportation impacts such as an increase in traffic from transporting construction materials and workers to the activity area, temporary road closures and diverting traffic to alternative routes. These impacts would be limited to the duration of the construction activity. Additionally, it is expected that any increase in traffic as a result of the construction process would be adequately supported by the existing transportation infrastructure in the area.

Factors that influence significance include the length of the construction period, if the construction project will lead to a significant traffic increase during the construction period, or if the scope of work includes a major road repair or new road that will permanently upset or alter the normal flow of traffic. These factors are also detailed in **Table 15** included at the end of **Section 4.2.2**. With the application of best management practices and mitigation measures when needed, exterior and interior construction activities are not expected to result in a traffic increase or change that would permanently upset the normal flow of traffic; or require the expansion of existing public transit systems, existing roadways, or transportation facilities (parking structures or areas); the repair of an existing major road; or the establishment of a new major road.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

Therefore, no significant transportation impacts are anticipated from interior and exterior construction activities.

Air Quality

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to air quality.

PROPOSED ACTION

Interior construction activities take place inside existing space and are mostly for the purpose of finishing a previously unfinished space or to update existing space to accommodate changing needs that are consistent with current operations taking place in the existing facility. Equipment for indoor construction activities is generally limited to the use of handheld power tools for the construction process and light duty trucks to carry construction materials that do not generate significant air quality emissions. OJP requires that standard construction practices be followed to minimize potential dust and other emissions; compliance with these standard practices minimize the potential for air quality impacts.

Exterior construction activities could lead to an increase in air emissions on a localized level at each individual activity site, but these emissions would normally be of limited duration. Temporary impacts could include increased emissions from construction vehicles and equipment such as volatile organic compounds, criteria pollutants, and fine particulate matter which can be harmful to human health and the environment.⁶⁵

Temporary impacts also could include generation of pollutants from the movement of soil, including particulate matter and fugitive dust, which would be expected to be greatest during site excavation and site preparation for exterior construction activities.⁶⁶ Although exterior construction activities present the potential for air quality impacts, OJP-funded construction projects generally have a construction period of short duration (typically ranging from a few months to under a year), and therefore are not expected to have significant impacts. Additionally, OJP requires that standard construction practices be followed to minimize potential dust and other emissions; compliance with these standard practices minimize the potential for air quality impacts.

Factors that influence significance include the type, size, and age of equipment (if manufactured pre-1996); use of higher sulfur diesel fuel for equipment; idling of vehicles during construction; and if the project area is in a dry climate or in a non-attainment area. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, interior and exterior construction activities are not expected to generate significant air emissions during construction that exceed the de minimis threshold of the NAAQS established under the CAA or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS. Therefore, no significant air quality impacts are anticipated from interior and exterior construction activities.

Geology, Topography, and Soils

This section discusses geology, topography, and soils and prime and unique farmland impacts.

Geology, Topography, and Soils

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to geology, topography, and soils.

PROPOSED ACTION

Interior construction activities take place inside existing space and do not involve any activities that would result in erosion or loss of topsoil that reduce vegetation or soil function. Therefore, no significant impacts to geology, topography, or soils are anticipated from interior construction activities.

Exterior construction activities could have temporary impacts such as removal and loss of topsoil and vegetation due to the movement of construction equipment, placement or storage of construction materials, and the overall construction process. Soil compaction could also result from the use of heavy construction equipment or vehicles. These activities may lead to increased soil erosion and runoff, and a reduced rate of water infiltration into soil. Temporary impacts could lead to long-term impacts if topsoil and vegetation are permanently removed, or if land-disturbing activities (clearing, land leveling, excavating, laying asphalt or concrete, or transporting and filling of land) disturb a large area of soil. Activities that remove soil and vegetation to construct or install buildings, trailers, or impermeable surfaces such as pavement, parking lots, and sidewalks would lead to long-term impacts to soil and vegetation and potentially increase erosion as the impermeable surfaces prevent water from infiltrating back into the soil.⁶⁷ Although exterior construction activities do present the potential for temporary and long-term impacts, generally locations selected for new construction are suitable for development or were previously developed, and construction activities are planned to minimize the potential for erosion during the construction process and the amount of vegetation permanently removed from a project area.

Factors that influence significance include local topography (e.g., steep slopes or high elevation), soil type (e.g., silt or sand dominant), land use patterns in the area (e.g., urban, or rural areas), the amount of erosion expected, and if large scale land clearing and/or introduction of impervious surfaces will result. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, exterior construction activities are not expected to result in substantial erosion, loss, or compaction of topsoil that significantly reduces vegetation or soil function. Therefore, no significant impacts to geology, topography, or soils are anticipated from exterior construction activities.

Prime and Unique Farmland

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to prime and unique farmland.

PROPOSED ACTION

Interior construction activities take place inside existing space and would not convert farmland to any other use. Therefore, no significant prime and unique farmland impacts are anticipated from interior construction activities.

Exterior construction activities do have the potential to impact prime and unique farmland if new construction or expansion will permanently convert farmland to a non-agricultural use. However, the majority of OJP-funded exterior construction activities do not occur in areas designated as prime and unique farmland.

Factors that influence significance include whether the activity would occur at a location designated as prime or unique farmland, or farmland of local importance. These factors are also detailed in **Table 15** included at the end of **Section 4.2.2**. With the application of best management practices and mitigation measures when needed, exterior construction activities are not expected to result in farmland impacts that exceed an allowable level (over 160 points) based on Form AD-1006 (the Farmland Conversion Impact Rating) or exceed any state or tribal farmland regulatory thresholds. Therefore, no significant prime and unique farmland impacts are anticipated from exterior construction activities.

Solid and Hazardous Waste

This section discusses solid and hazardous waste impacts.

Solid Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no solid waste impacts.

PROPOSED ACTION

Interior and exterior construction activities are analyzed together for this resource area because they are expected to have similar solid waste impacts. Solid waste produced during interior and exterior construction activities could include, for example, steel joists or pipes, wood, drywall and plaster, ceiling tiles, and concrete and asphalt. Temporary solid waste impacts could include a short-term increase in the quantity of solid waste being produced for the duration of the construction process.⁶⁸ However, OJP requires all applicants undertaking construction activities to use contractors whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure debris from construction is stored, transported, and disposed of properly. Compliance with these requirements minimize the potential for solid waste impacts.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

The primary factor that influences significance is if adequate waste collection, storage, transport, and disposal processes and procedures are in place and will be followed throughout the construction process. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, interior and exterior construction activities are not expected to result in solid waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant solid waste impacts are anticipated from interior and exterior construction activities.

Hazardous Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no hazardous waste impacts.

PROPOSED ACTION

Interior and exterior construction activities are analyzed together for this resource area because they are expected to have similar hazardous waste impacts. Interior and exterior construction activities could lead to a temporary increase in the quantity of hazardous waste being produced for the duration of the construction process. Hazardous waste produced during interior and exterior construction activities could include, for example, materials with lead-based paint and asbestos containing materials. Mismanagement of hazardous waste could lead to contamination that generates waste runoff and sediment with lasting effects on the surrounding environment. However, OJP requires all applicants undertaking construction activities to use contractors whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly. Compliance with these requirements minimize the potential for hazardous waste impacts.

The primary factor that influences significance is if adequate waste collection, storage, transport, and disposal processes and procedures are in place and will be followed throughout the construction process. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, interior and exterior construction activities are not expected to result in hazardous waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant hazardous waste impacts are anticipated from interior and exterior construction activities.

Energy

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no energy impacts.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

PROPOSED ACTION

Interior and exterior construction activities are analyzed together for this resource area because they are expected to have similar energy impacts. Temporary, indirect impacts from interior and exterior construction activities could include energy consumed during the construction process. Handheld tools (such as drills, jigsaws, and sanders) that may be used in interior and exterior construction activities have minimal energy usage requirements. Larger construction equipment and vehicles have higher energy requirements. If construction activities require the use of temporary office space (e.g., trailers) during the construction process, this additional energy usage could also contribute to temporary energy impacts. OJP-funded construction projects generally have a construction period of short duration (typically ranging from a few months to under a year) and would not lead to a significant increase in energy consumption during the construction process as compared to existing consumption.

Factors that influence significance include the energy requirements of the equipment being used during the construction process compared to area's available energy supply, and the availability of renewable energy to be used during the construction process. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, interior and exterior construction activities are not expected to lead to a significant increase in energy consumption as compared to existing energy consumption or exceed an area's available energy supply as defined and established by local, municipal, county, or metropolitan region's energy codes and policies. Therefore, no significant energy impacts are anticipated from interior and exterior construction activities.

Noise

Please note, this section is limited to the discussion of how noise produced from construction activities may impact community noise levels. Potential noise impacts that are specific to Workplace Health and Safety, Wildlife and Habitat, and Federally Protected Species are discussed in the corresponding sections for those resource areas.

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts from noise.

PROPOSED ACTION

Interior construction activities take place in existing structures and would not likely contribute to noise levels outside the structure. Equipment for indoor construction activities is generally limited to the use of handheld power tools with relatively low noise levels. Due to the nature of interior construction activities, any noise produced as part of construction activities would be dampened by the existing structure, resulting in little to no noise spreading to the exterior of the building to expose people or noise sensitive areas/facilities.

Exterior construction activities have the potential to result in temporary noise impacts. Temporary noise impacts could include noise generated by construction equipment and tools, construction workers, the movement of materials, and the overall construction process. [Table 14](#) provides predicted noise levels associated with commonly used construction equipment. DNLs

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

that exceed 75 dBA are “clearly unacceptable” in residential or other noise-sensitive areas. The high levels of all of the construction equipment listed in **Table 14** would contribute to potentially “clearly unacceptable” noise levels in noise-sensitive land use areas. However, OJP-funded construction projects generally have a construction period of short duration (typically ranging from a few months to under a year) and limit construction activities to taking place during normal business hours, lessening the potential impact on nearby noise-sensitive areas/developments (such as residences, schools, parks, etc.).

Factors that influence significance include if tools and equipment produce noise above 65 dBA, the existing noise level of the area, and the proximity and number of sensitive noise receptors in the area (residences, schools, parks, etc.). These factors are also detailed in **Table 15** included at the end of **Section 4.2.2**. With the application of best management practices and mitigation measures as needed, interior and exterior construction activities are not expected to generate noise that leads to prolonged exposure of people, or noise sensitive areas/facilities that violates applicable local, state, or federal noise regulations. Therefore, no significant noise impacts are anticipated from interior and exterior construction activities.

Table 14. Predicted Noise Levels for Construction Equipment⁶⁹

Construction Category and Equipment	Predicted Noise Level at 50 feet (dBA)
Bulldozer	100
Chain saw	110
Jackhammer	102
Concrete saw	98
Nail gun	97
Forklift	93
Belt sander	90
Backhoe	85
Framing saw	82
Electric Power Drill	87-93
Handsaw	88
Hammer on Nail, Pneumatic Drill	99 -120

Water Resources

This section discusses impacts to water quality, floodplains, wetlands, surface water, groundwater, and federally protected waters.

Water Quality

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no water quality impacts.

PROPOSED ACTION

Interior construction activities take place in existing structures and therefore would not be likely to release contaminants into nearby water bodies. Mismanagement of solid or hazardous waste could lead to contamination that generates waste runoff and sediment with lasting effects on water quality of nearby water resources and impacts to aquatic life.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

Exterior construction activities could lead to temporary impacts to water quality from issues such as runoff from loose soil or waste runoff from improper storage or mismanagement of solid and hazardous waste (as discussed above) or from mismanagement of outdoor construction materials. For example, if collected piles of dirt or soil at activity sites are exposed to precipitation, dirt and soil could be transported into nearby water bodies and contaminate and negatively affect water quality. Additionally, the use of heavy construction equipment or vehicles could lead to soil compaction which would enhance erosion and runoff into nearby water bodies. Exterior construction activities could also result in the accumulation of hazardous liquids like oil, if not stored and disposed of properly hazardous liquids could run into nearby water bodies and contaminate water directly.

Although interior and exterior construction activities present the potential for water quality impacts, OJP requires all applicants undertaking construction activities to use contractors whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly. Compliance with these requirements minimize the potential for water quality impacts. Additionally, it is expected that contractors and existing facilities would have existing spill plans and other protocols in place to ensure the efficient containment of an inadvertent release if one were to take place during the construction process.

Factors that influence significance include the scale of disturbance, the location of the activity, the number of nearby water bodies, the current condition of the water bodies, and if adequate waste storage and disposal processes are in place and will be followed throughout the construction process. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, interior and exterior construction activities are not expected to directly or indirectly release contaminants into nearby water bodies that exceed state, tribal or federal WQS, violate TMDL targets, or result in significant erosion or runoff impacts. Therefore, no significant water quality impacts are anticipated from interior and exterior construction activities.

Floodplains

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to floodplains.

PROPOSED ACTION

The investment of interior construction activities could be at risk for destruction if implemented in an existing structure located in a floodplain that does not have adequate flood mitigation measures in place (such as maintaining adequate flood insurance or being adequately elevated).

Exterior construction activities that take place in floodplains could generate temporary impacts to floodplains from land disturbing activities, which could result in increased runoff and formation of sediment that reduce the carrying capacity of floodplains (the ability of floodplains to store and dissipate water), which would subsequently increase flooding potential and severity of future flooding events in or near the activity area and potentially lead to long-term impacts to

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

flood risk. Exterior construction activities could also lead to long-term impacts to floodplains by increasing the amount of impervious surface in the area and decreasing a floodplain's carrying capacity. Additionally, the use of heavy construction equipment and vehicles can result in soil compaction, reducing the rate of water infiltration into soil, which can also contribute to a decrease in a floodplain's carrying capacity. Furthermore, the investment of exterior construction activities could be at risk for destruction adequate mitigation measures (such as maintaining adequate flood insurance or being adequately elevated) are not identified and implemented as part of the construction planning process.

Factors that influence significance include the presence and proximity of a floodplain to the project location, the current facility-level flood mitigation measures if project involves an existing building in the floodplain, and if large scale land clearing and/or introduction of impervious surfaces will result. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of appropriate best management practices and mitigation measures, exterior construction activities are not expected to lead to direct or indirect impacts that result in a substantial increased flood danger to the area, be noncompliant with applicable state or local floodplain ordinances, or federal requirements. Therefore, no significant floodplain impacts are anticipated from interior and exterior construction activities.

Wetlands

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to wetlands.

PROPOSED ACTION

Interior construction activities take place in existing structures and are not expected to lead to direct or indirect impacts that trigger avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA. Therefore, no significant wetlands impacts are anticipated from interior construction activities.

Exterior construction activities could lead to temporary, indirect impacts to wetlands. Loose soil or waste runoff from construction materials have the potential to change water levels and drainage patterns within a wetland. Additionally, increased foot and vehicle traffic during the construction process could lead to an introduction of invasive or exotic plant species which could have impacts on native and wild wetland plant populations and sensitive wildlife dependent on wetland environments.

Exterior construction activities could lead to temporary, direct impacts to wetlands if the construction process requires temporary encroachment on a wetland or its buffer (such as for a staging area). Long-term impacts would result if new facilities were built on an existing wetland (requiring the wetland to be filled), or in close proximity to an existing wetland (resulting in permanent encroachment on the wetland's buffer), or if the construction results in the introduction of impervious surface that permanently alters the water level and drainage patterns of a nearby wetland. Exterior construction activities that are not located within a wetland or in close proximity to wetlands would not present the potential for impacts to wetlands.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

Factors that influence significance include the presence and proximity of a wetland, the current condition of the wetlands, location of the activity, the amount of erosion expected, if large scale land clearing and/or introduction of impervious surfaces will result, and if an existing wetland will be filled. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures as needed, exterior construction activities are not expected to lead to direct or indirect impacts that trigger avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA. Therefore, no significant wetlands impacts are anticipated from exterior construction activities.

Surface Water

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to surface water.

PROPOSED ACTION

Interior construction activities take place in existing structures and are generally not expected to lead to the contamination of surface water, or significant changes in the availability of surface water. However, mismanagement of solid or hazardous waste could lead to contamination that generates waste runoff and sediment with lasting effects on surface water and impacts to aquatic life.

Exterior construction activities could lead to the contamination of surface water from improper storage or mismanagement of solid and hazardous waste or from mismanagement of outdoor construction materials. For example, exterior construction activities could result in the accumulation of hazardous liquids like oil, if not stored and disposed of properly hazardous liquids could run into nearby water bodies and contaminate water directly. Additionally, the use of heavy construction equipment or vehicles could lead to soil compaction which would enhance erosion and runoff and reduce the rate of water infiltrating into soil. These impacts to surface water could have impacts on the aquatic life and have anthropological impacts if the surface water resource provides ecosystem services such as recreation, drinking water source, or other uses.

Although interior and exterior construction activities present the potential for impacts to surface water, OJP requires all applicants undertaking construction activities to use contractors whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly. Compliance with these requirements minimize the potential for surface water impacts. Additionally, construction activities are not anticipated to require high water usage, as large quantities of water are not generally required for construction activities (with the exception of power washing existing structures or building materials, which is rarely needed).

Factors that influence significance include the presence and proximity of the project to surface water bodies, the current condition of surface water bodies, the amount of erosion expected, if large scale land clearing and/or introduction of impervious surfaces will result, and if adequate waste collection, storage, transport, and disposal processes are in place and will be followed

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

throughout the construction process. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, exterior construction activities are not expected to contaminate surface water or result in significant changes in the availability of surface water. Therefore, no significant surface water impacts are anticipated from interior or exterior construction activities.

Groundwater

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to groundwater.

PROPOSED ACTION

Interior construction activities take place in existing structures and therefore do not present the potential for impacts that may result in a reduced rate of water infiltration (such as the introduction of new impervious surface or the compaction of soil). Additionally, interior construction activities are not anticipated to require high water usage, as large quantities of water are not generally required for interior construction activities. Alternatively, mismanagement of solid or hazardous waste during the construction process could lead to contamination that could ultimately impact groundwater.

Exterior construction activities that remove large quantities of vegetation or soil and/or introduce new impervious surface to an activity site could lead to a reduced rate of water infiltration to groundwater aquifers, which could alter groundwater recharge patterns. Additionally, activities using heavy construction equipment or vehicles that result in soil compaction on site could also contribute to the reduction in the rate of water infiltrating into soil. Exterior construction activities are not anticipated to require high water usage, as large quantities of water are not generally required for construction activities (with the exception of power washing existing structures or building materials, which is rarely needed). Alternatively, mismanagement of solid or hazardous waste during the construction process could lead to contamination that could ultimately impact groundwater.

Although interior and exterior construction activities present the potential for impacts to groundwater, OJP requires all applicants undertaking construction activities to use contractors whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly. Compliance with these requirements minimize the potential for groundwater impacts as a result of contamination.

Factors that influence significance include the amount of land area that may be subject to compaction as a result of the use of heavy machinery, the amount of disturbance to soil and vegetation and whether that disturbance is temporary or permanent, the amount of newly established impervious surface that will result from the proposed project, the proximity of activities to aquifers, and if adequate waste collection, storage, transport, and disposal processes are in place and will be followed throughout the construction process. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

management practices and mitigation measures when needed, interior and exterior construction activities are not expected to result in significant changes in groundwater discharge or recharge patterns, contamination of groundwater, or significant changes in the availability of groundwater. Therefore, no significant groundwater impacts are anticipated from interior and exterior construction activities.

Federally Protected Water Resources

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to federally protected water resources.

PROPOSED ACTION

Interior construction activities take place in existing structures and are therefore not likely to violate applicable state, tribal, or federal regulations for federally protected waters. However, mismanagement of solid or hazardous waste during the construction process could lead to contamination that could impact federally protected water resources.

Exterior construction activities that remove or disturb soil or vegetation could generate runoff and lead to formation of sediment. Additionally, mismanagement of solid or hazardous waste during the construction process could lead to contamination that could impact federally protected water resources. These impacts could damage the recreational, ecological, historical, or aesthetic values of Coastal Barrier Resource Areas, deteriorate coastal zone resources, or lead to the deterioration of the “Outstandingly Remarkable Values” of NRI and Wild and Scenic Rivers.

Although interior and exterior construction activities present the potential for impacts to federally protected water resources, OJP requires all applicants undertaking construction activities to use contractors whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly. Compliance with these requirements minimize the potential for impacts to federally protected water resources as a result of contamination.

Factors that influence significance include the proximity of construction to federally protected waters, the amount of erosion expected, if large scale land clearing and/or introduction of impervious surfaces will result, the amount of sediment extraction required, and if adequate waste storage and disposal processes are in place and will be followed throughout the construction process. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures as needed, interior and exterior construction activities are not expected to violate applicable state, tribal, or federal regulations for federally protected waters. Therefore, no significant federally protected water resource impacts are anticipated from interior and exterior construction activities.

Biological Resources

This section discusses vegetation, wildlife and habitat, and federally protected species.

Chapter 4. Impacts Analysis: **4.2 Construction Impacts**

Vegetation

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to vegetation.

PROPOSED ACTION

Interior construction activities take place in existing structures and do not involve any ground disturbing activities or the removal of vegetation, and so would not lead to the introduction of invasive or exotic species or the disturbance or permanent loss of natural vegetation communities. Therefore, no significant vegetation impacts are anticipated from interior construction activities.

Exterior construction activities could result in temporary impacts to vegetation if there is a need to remove vegetation during the construction process. Temporary impacts could lead to long term impacts if the construction required large amounts of vegetation to be permanently removed, which could have impacts to the activity area's entire ecosystem. Long-term impacts could also result from the movement of construction workers and vehicles during the construction process. Increased foot and vehicle traffic during the construction process could introduce invasive or exotic species into the activity area which could negatively affect native vegetation by changing the diversity of species and introducing new species that compete with native vegetation species. Introduction of non-native species can also change soil chemistry, which could lead to increased erosion and further loss of vegetation.⁷⁰ Construction activities are generally planned to either minimize or compensate for the removal of vegetation from a project area and have protocols in place to minimize the potential for the introduction of invasive or exotic species. Appropriate protocols to minimize the potential for the introduction of invasive or exotic species vary based on the project location and activities, and often include best management practices such as thoroughly cleaning construction equipment.

Factors that influence significance include the amount and type vegetation present at the activity area, the amount of vegetation that will be disturbed or removed, if increased foot or vehicle traffic presents a risk for the introduction of invasive or exotic species, and the current uses of the activity area. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures as needed, exterior construction activities are not expected to result in the introduction of invasive or exotic species and/or disturbance or permanent loss of natural vegetation communities. Therefore, no significant vegetation impacts are anticipated from exterior construction activities.

Wildlife and Habitat

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to wildlife or habitat.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

PROPOSED ACTION

Interior construction activities take place in existing structures; therefore, no physical disturbance or impacts to wildlife or habitat are expected. As discussed previously, due to the nature of interior construction activities, any noise produced as part of construction activities would be dampened by the existing structure, resulting in little to no noise spreading to the exterior of the building to expose sensitive wildlife.

Exterior construction activities could result in temporary impacts to sensitive wildlife and habitat as a result of the introduction of noise, light, and/or air pollution, or improper disposal of construction waste. Temporary increases in noise or light pollution during the construction process can lead to changes in wildlife behavior, including avoidance of areas with high levels of noise or light or increases in stress.⁷¹ Temporary increases in dust or vehicle emissions during the construction process can increase air pollution and lead to negative impacts on nearby wildlife. Additionally, if waste from exterior construction, such as trash and/or debris, is not stored properly at activity sites and becomes exposed to rain or large weather events, it can be transported into nearby aquatic or terrestrial habitats, resulting in negative impacts on the habitat and corresponding wildlife.

Exterior construction activities could also lead to long-term impacts if permanent land clearing is required. This could lead to habitat loss and fragmentation, reducing the amount of suitable habitat available for wildlife, increasing competition among species, and leading to a decrease in biodiversity.⁷² Additionally, increased foot and vehicle traffic during the construction process could lead to an introduction of invasive or exotic plant species which could result in long-term impacts on the area's existing ecosystem. Construction activities generally have protocols in place to minimize the potential for the introduction of invasive or exotic species. Appropriate protocols to minimize the potential for the introduction of invasive or exotic species vary based on the project location and activities, and often include best management practices such as thoroughly cleaning construction equipment. The mismanagement of solid or hazardous waste during the construction process could lead to contamination to the surrounding impact that could impact wildlife populations. However, OJP requires all applicants undertaking construction activities to use contractors whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly. Compliance with these requirements minimize the potential for impacts to wildlife and habitat as a result of contamination.

Factors that influence significance include the presence of wildlife and habitat in the area, the extent of potential land or habitat disturbance, the volume and duration of noise introduced to the area, the intensity and duration of light pollution introduced to the area, the amount of dust and/or vehicle emissions that will result, the time of year activities would be taking place relative to breeding and nesting seasons of nearby wildlife, if increased foot or vehicle traffic presents a risk for the introduction of invasive or exotic species, and if adequate waste collection, storage, transport, and disposal processes are in place and will be followed throughout the construction process. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures as needed, interior and

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

exterior construction activities are not expected to result in the disruption of nearby wildlife populations, or violate local, state, tribal, or federal regulations which protect wildlife and their habitats. Therefore, no significant wildlife and habitat impacts are anticipated from interior or exterior construction activities.

Federally Protected Species

The Wildlife and Habitat “No Action” and “Proposed Action” discussions above are applicable impacts analyses for the federally protected resource area. Additionally, due to the short-term duration of the typical exterior construction period, the construction can generally be planned to avoid impacts to migratory birds and breeding times of threatened and endangered species if needed.

In addition to the factors listed in the Wildlife and Habitat section above, the significance of impacts for federally protected species would vary at the site level depending on the presence of federally protected species in the area, and proximity to their critical habitats. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, interior and exterior construction activities are not expected to result in the take of a migratory bird or T&E species or lead to impacts on to the critical habitat of a T&E species. Therefore, no significant federally protected species impacts are anticipated from interior or exterior construction activities.

Cultural Resources

This section discusses historic structures and archaeological resources.

Historic Structures

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to historic structures.

PROPOSED ACTION

Interior and exterior construction activities are analyzed together for this resource area because they are expected to have similar impacts on historic structures. Interior and exterior construction activities in the vicinity of a historic structure or historic district that change the character of the resource’s setting could lead to indirect impacts on historic structures. Indirect, temporary impacts would be limited to the construction period, and could include the presence of noise, large construction equipment and vehicles, and general construction activity. Indirect, long-term impacts could include the introduction of new visual or audible elements that are out of character and alter the surroundings to an extent that would affect the integrity of the historic setting of a nearby property. Direct long-term impacts to historic structure(s) would result if construction activities were connected to an existing historic structure, affected or altered important architectural or historical characteristics (interior or exterior) of a historic structure, or required demolition of an existing historic structure. Interior and exterior construction activities that do not involve historic structures, are not located in areas with historic structures, and are not located within or in proximity to historic districts do not present the potential for impacts to these resources.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

Factors that influence significance include the proximity to historic structures or districts, the characteristics of any applicable historic structure(s), and if the proposed building alterations have the potential to impact these resources. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures as needed, interior and exterior construction activities are not anticipated to directly or indirectly, diminish a structure's historic integrity or significance or equate to an "adverse effect" determination under Section 106 of the NHPA. Therefore, no significant historic structure impacts are anticipated from interior and exterior construction activities.

Archaeological Resources

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to archaeological resources.

PROPOSED ACTION

Interior construction activities occur within existing space and would not alter, destroy, or damage archaeological deposits or culturally significant attributes. There would be no ground disturbance that could directly or indirectly impact archaeological resources or diminish a resource's integrity or historic or cultural significance or equate to an "adverse effect" determination under Section 106 of the NHPA. Therefore, no significant archaeological resources impacts are anticipated from interior construction activities.

Exterior construction activities that involve ground disturbance could potentially encounter unknown, and usually buried, archaeological resources during the construction process, which could lead to significant impacts if these resources cannot be avoided. The use of heavy construction equipment or vehicles that could lead to soil compaction could also result in impacts or disturbance of archaeological resources. OJP would require that proper archaeological investigations be conducted for ground disturbing activities proposed for undisturbed, or otherwise potentially archaeologically sensitive areas, prior to initiating project activities. Additionally, to minimize the potential for significant impacts, OJP would require construction activities to incorporate unintended discovery procedures in the event archaeological resources or human remains are encountered during exterior construction activities when appropriate.

Factors that influence significance include the use of heavy construction equipment on previously undisturbed land, ground disturbance in an archaeologically sensitive or historic area, and ground disturbance that exceeds the depth of previously known disturbance. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures as needed potential for impacts of unidentified archaeological resources would be minimized and appropriate procedure would be followed in the event of an unintended discovery. Therefore, no significant archaeological resource impacts are anticipated from exterior construction activities.

Aesthetics

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to aesthetics.

PROPOSED ACTION

Interior construction activities take place in existing structures and therefore do not present the potential to degrade or alter the visual quality of the APE or substantially lower the visual quality of the APE as there will be no impacts to the exterior of the structure that would be visible in the area. Therefore, no significant aesthetic impacts are anticipated from interior construction activities.

Exterior construction activities could lead to temporary and long-term impacts on visual character (obstruction of views) and visual quality (decrease in vividness) of an activity area. Temporary impacts to visual character could include construction operations and equipment obstructing views of the natural and/or built environment (where the built environment is integral to the character of the area), or the removal of trees, plants, and vegetation during the construction process. Long-term impacts to visual character could include the permanent removal or introduction of any natural or built feature such as a parking structure or new facility, or the removal of trees, plants, or vegetation.

Temporary impacts to visual quality could include the introduction of distracting construction and renovation equipment and workers to an area. Long-term impacts to visual quality could include the introduction of new buildings that are of different colors, heights, or have different signage than surrounding buildings. Although exterior construction activities do present the potential for impacts to aesthetics, exterior construction activities are generally designed to be of compatible design and scale of surrounding developments, as to maintain the sense of place of the project area and to not result in aesthetic impacts.

Factors that influence significance include the surrounding activity area's existing visual character and visual quality, existing public preferences for an area's visual character and visual quality, and if there are any existing design guidelines for the area. These factors are also detailed in **Table 15** included at the end of **Section 4.2.2**. With the application of best management practices and mitigation measures when needed, exterior construction activities are not expected to result in the degradation or alteration the visual character of the APE or substantially lower the visual quality of the APE. Therefore, no significant aesthetics impacts are anticipated from exterior construction activities.

Workplace Safety and Health

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to workplace safety and health.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

PROPOSED ACTION

Interior and exterior construction activities are analyzed together for this resource area because they are expected to have similar workplace safety and health impacts. Potential impacts from the construction process include the potential for harm or injuries to construction workers and facility employees from construction equipment. Injuries could include incidents such as falls, cuts, scrapes, chemical, fire, or electrical burns resulting from the operation of construction equipment, movement of materials, chemical spills, injured skin or eyes from lack of protective gear during the general construction process (for example from inadequate eye and face protection or electric shock from electrical components), or hearing injuries from creating or working near extremely noisy environments without proper hearing protection. Additionally, interior and exterior construction activities could expose construction workers and facility employees to hazardous waste such as asbestos-contaminated ceiling and floor tiles, paint and adhesive products, lead-based paint, or solvents.⁷³ However, OJP requires all applicants undertaking construction activities to use contracting companies and in-house staff who follow OSHA regulations to avoid potential injuries during construction. It is anticipated that construction activities would comply with all applicable OSHA regulations, including the General Duty Clause, which requires employers to provide a safe and hazard-free work environment, and Safety and Health Regulations for Construction (29 CFR Part 1926) which requires employers to offer personal protective equipment to limit exposure to excessive noise and toxic or hazardous chemicals. Compliance with these regulations minimize the potential for workplace safety and health impacts.

It is also anticipated that additional avoidance and minimization measures (e.g., posting signage around construction areas and using construction barriers where appropriate) would be implemented to increase awareness of the activities and further ensure construction activities would not pose an immediate threat to the health and safety of the workers or public. Furthermore, for projects where interior construction activities are limited to a discrete area of a building (e.g., a single floor), it is common practice for all employees who are in proximity to the construction to be relocated to avoid disruption or other adverse impacts on the employees.

Factors that influence significance include the equipment used, the type of waste being generated, and if sufficient workplace safety protocols are in place. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, interior and exterior construction activities are not expected to violate OSHA's General Duty Clause or other OSHA workplace safety and health standards and regulations or pose an immediate threat to the health and safety of the workers or public. Therefore, no significant workplace safety and health impacts are anticipated from interior and exterior construction activities.

Environmental Justice

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to environmental justice.

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

PROPOSED ACTION

Interior and exterior construction activities are analyzed together for this resource area because they are expected to have similar environmental justice impacts. If a construction activity is in an area with a high percentage of minority or low-income populations, project activities have the potential to result in environmental justice impacts. If a project is identified as being in an area with the presence of environmental justice population(s) potential environmental justice impacts must be considered. Where there are environmental justice populations in the area, the potential for otherwise non-significant impacts to resources must be considered in light of their potential to be significant impacts to environmental justice population(s). As discussed throughout [Section 4.2](#), OJP-funded construction activities do not normally present the potential to result in significant human health or environmental effects so significant impacts to environmental justice populations are unlikely.

Factors that influence significance include the concentration of environmental justice populations in the area, any pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area, and the significance of other impacts to the human environment as a result of the activity and the percentage of employment, goods, and services procured from local residents and businesses during the construction period. These factors are also detailed in [Table 15](#) included at the end of [Section 4.2.2](#). With the application of best management practices and mitigation measures when needed, interior and exterior construction activities are not expected to result in disproportionately high and adverse human health or environmental impacts to communities with environmental justice concerns. Therefore, no significant environmental justice impacts are anticipated from interior and exterior construction activities.

4.2.2 Requirements for Further Analysis and Mitigation Measures

As discussed throughout [Section 4.2.1](#), significant impacts are not expected for OJP-funded interior and exterior construction activities. However, OJP must consider each proposed activity individually, based on the specific scope of the activity in its unique location, including the surrounding resources and populations that could potentially be impacted. The following table should be reviewed for each proposed construction activity to make an individual determination as to whether further NEPA analysis is required for that specific activity.

The table below explains when a tiered analysis (EA or EIS) is required to evaluate potentially significant impacts based on the significance criteria defined in this PEA. The table also lists factors to help OJP with this determination. The tiered analysis should be limited to resource areas that have not already been sufficiently covered by this PEA and may have significant impacts.

- A **tiered EA** is required if a proposed activity may have significant impacts, or if there is incomplete information to determine if impacts may be significant.
- A **tiered EIS** is required if the proposed activity has significant impacts, and those significant impacts will not be mitigated below the significance level.

If a tiered EA identifies significant impacts, OJP must implement mitigation measures to reduce the significance of those impacts below the significance criteria threshold and list these measures

Chapter 4. Impacts Analysis: 4.2 Construction Impacts

in the finding of no significant impact (FONSI), if determined, for the tiered EA. **If a tiered EA identifies significant impacts and mitigation measures are not identified to mitigate impacts below the level of significance, then OJP must prepare an EIS.** See the “sample mitigation measures” in this table for recommended measures to reduce the significance of impacts. Note that other mitigation measures may be used instead of the listed mitigation measures if they reduce impacts below the level of significance and are approved by OJP.

Cumulative Impacts

When evaluating whether a tiered NEPA analysis is required, OJP must determine if a proposed activity has the potential for significant cumulative impacts in the context of past, ongoing, and reasonably foreseeable future actions within or near the area of potential effect for the proposed action. OJP must consider federal and non-federal actions, regardless of the funding source, when considering potential cumulative impacts. Cumulative impacts must be evaluated for each proposed activity.

A tiered NEPA analysis evaluating potentially significant cumulative impacts is required if the proposed activity, in context of other past, ongoing, or future activities, would exceed the capacity of existing infrastructure (energy supply, water supply, etc.) or contribute to resource issues in the area. Factors to consider whether a tiered NEPA analysis is required to evaluate cumulative impacts include:

- Other actions (past, present, and reasonably foreseeable future actions) within or near the area of potential effect that may have an environmental impact.
- Resource issues (e.g., flooding) and sensitive environmental resources (e.g., endangered species, wetlands) in or near the area of potential effect where the addition of the proposed activity in the context of past, present, and reasonably foreseeable future actions could increase the potential for significant cumulative impacts.

Table 15. Interior and Exterior Construction Activities Requirements for a Tiered EA/EIS and Sample Mitigation Measures

Interior and Exterior Construction Activities
Land Use – Zoning
Tiered EA/EIS evaluating land use impacts and mitigation required if proposed activity would: conflict with any local, state, or federal land use plans or local zoning regulations.
Factors to consider whether tiered EA/EIS is required: the anticipated future use of the property is incompatible with the area; the proposed construction would add new operations beyond what the property is currently zoned for.
Sample mitigation measures: obtain a zoning variance; select an alternative location.
Land Use – Transportation
Tiered EA/EIS evaluating transportation impacts and mitigation required if proposed activity would: cause a traffic increase or change that would permanently upset the normal flow of traffic or require the expansion of existing public transit systems; require a major road repair or the establishment of a new major road.
Factors to consider whether tiered EA/EIS is required: construction activities will result in a significant increase in traffic during the construction period (if this is the case the length of the construction period and how long these impacts will last should also be considered); the scope of work includes a major road repair or new road that will permanently upset or alter the normal flow of traffic.
Sample mitigation measures: develop a transportation management plan with community outreach and communicate transportation impacts.
Air Quality
Tiered EA/EIS evaluating air quality and mitigation required if proposed activity would: generate emissions exceeding de minimis threshold of NAAQS or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS.
Factors to consider whether tiered EA/EIS is required: the amount of air pollution that will result from use of construction equipment will be abnormally high due to the type, size, and/or age of the equipment; sulfur diesel fuel will be used for construction equipment; construction activities will require a lot of idling of equipment; the project area is in a dry climate; the project area is located in a non-attainment area.
Sample mitigation measures: minimize vehicle idling; use updated construction equipment with lower air emissions; use tarpaulins on trucks to haul debris; use water spray to minimize fugitive dust.
Geology, Topography, and Soils
Tiered EA/EIS evaluating geology, topography, and soils impacts and mitigation required if proposed activity would: result in substantial erosion or loss of topsoil that significantly reduces vegetation or soil function.
Factors to consider whether tiered EA/EIS is required: area is susceptible to landslide/seismic hazards; construction involves permanent removal of topsoil or vegetation; pervious surfaces will be replaced with impervious surfaces; project activities involve land clearing activities.
Sample mitigation measures: create a Stormwater Pollution Prevention Plan; reduce erosion with control blanket or replacing vegetation.
Geology, Topography, and Soils: Prime and Unique Farmland
Tiered EA/EIS evaluating prime and unique farmland impacts and mitigation required if proposed activity would: result in impacts that exceed allowable level (over 160 points) based on Form AD-1006 (the Farmland Conversion Impact Rating) or if they exceed any state or tribal farmland regulatory thresholds.
Factors to consider whether tiered EA/EIS is required: the proposed construction would take place at a location designated as prime or unique farmland, or farmland of local importance.
Sample mitigation measures: modify activities to convert fewer acres; select an alternative site to avoid farmland conversion entirely.
Solid and Hazardous Waste
Tiered EA/EIS evaluating solid and hazardous waste impacts and mitigation required if proposed activities would: result in improper collection, storage, transportation, or disposal of solid and/or hazardous waste per local, state, tribal, or federal requirements.

Chapter 4. Impacts Analysis: **4.2 Construction Impacts**

Interior and Exterior Construction Activities
<p>Factors to consider whether tiered EA/EIS is required: there are inadequate or insufficient waste collection, storage, transport, and disposal protocols.</p>
<p>Sample mitigation measures: maintain a spill plan; improve waste management protocols if not currently sufficient, use recycled materials or otherwise reduce the amount of waste produced.</p>
Energy
<p>Tiered EA/EIS evaluating energy impacts and mitigation required if proposed activities would: result in a significant change in energy consumption as compared to existing energy consumption or if energy requirements exceed the area's available energy supply as defined and established by local, municipal, county, or metropolitan region's energy codes and policies.</p>
<p>Factors to consider whether tiered EA/EIS is required: the equipment being used for construction has high energy usage requirements; energy requirements for the construction process have the potential to exceed the area's available energy supply.</p>
<p>Sample mitigation measures: use renewable energy sources during construction; use more energy-efficient vehicles, machinery, and equipment; install renewable energy sources as part of the proposed construction project; construct energy efficient buildings.</p>
Noise
<p>Tiered EA/EIS evaluating noise impacts and mitigation required if proposed activity would: lead to prolonged exposure of people or noise sensitive areas/facilities to noise that violated applicable local, state, or federal noise regulations.</p>
<p>Factors to consider whether tiered EA/EIS is required: the tools and equipment that will be used have noise levels above 65 dBA; the project location is in close proximity to sensitive noise receptors (residences, schools, parks, etc.).</p>
<p>Sample mitigation measures: reroute vehicles to avoid sensitive noise receptors; coordinate with affected municipalities or affected business owners to schedule construction activities to minimize impacts.</p>
Water Resources - Water Quality, Surface Water, Groundwater, Federally Protected Water Resources
<p>Tiered EA/EIS evaluating water resource impacts and mitigation required if proposed activities would: directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS, or violate TMDL targets; or result in significant changes in the availability of surface water or groundwater; or violate applicable state, tribal, or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers).</p>
<p>Factors to consider whether tiered EA/EIS is required: the proposed project is located in close proximity to water bodies, aquifers, or federally protected water resources; construction process involves substantial and/or permanent disturbance to soil and vegetation; construction process involves substantial introduction of newly established impervious surface; construction process requires high water usage; the construction process has inadequate or insufficient waste collection, storage, transport, and disposal protocols.</p>
<p>Sample mitigation measures: prevent runoff by preserving trees and natural vegetation; replant native or in-kind vegetation at the conclusion of the construction if vegetation must be removed during the construction process; stabilize steep slopes; limit the staging area where heavy equipment will be used (to limit the area subject to compaction); improve waste management protocols if not currently sufficient.</p>
Water Resources – Floodplains
<p>Tiered EA/EIS evaluating floodplain impacts and mitigation required if proposed activity would: directly or indirectly alter a floodplain enough to present a substantial increased flood danger to the area; be noncompliant with applicable state or local floodplain ordinances, or federal requirements (such as under E.O. 11988 and E.O. 13690).</p>
<p>Factors to consider whether tiered EA/EIS is required: a floodplain is in close proximity to the activity area; new impervious surface is being introduced on or near a floodplain; an existing facility is located in a floodplain; an existing facility is located in a floodplain and does not maintain adequate flood insurance.</p>
<p>Sample mitigation measures: avoid construction in areas on or near floodplains; maintain as much pervious surface as possible; implement elevating or flood-proofing measures; maintain adequate flood insurance; develop an emergency evacuation plan.</p>

Chapter 4. Impacts Analysis: **4.2 Construction Impacts**

Interior and Exterior Construction Activities
Water Resources – Wetlands
Tiered EA/EIS evaluating wetland impacts and mitigation required if proposed activity would: directly or indirectly impact wetlands that triggers avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA.
Factors to consider whether tiered EA/EIS is required: a wetland is in close proximity to the activity area; new impervious surface is being introduced on or near a wetland; a wetland will be filled.
Sample mitigation measures: avoidance, minimization, or compensatory mitigation; for temporary impacts, if wetland or buffer vegetation must be removed during the construction process, replant vegetation at the conclusion of the activity.
Biological Resources – Vegetation
Tiered EA/EIS evaluating vegetation impacts and mitigation required if proposed activity would: lead to the introduction of invasive or exotic species or result in significant disturbance or permanent loss of natural vegetation communities.
Factors to consider whether tiered EA/EIS is required: a large amount of vegetation will be removed or disturbed; increased foot and vehicle traffic present the risk for the introduction of invasive or exotic species.
Sample mitigation measures: maintain topsoil to the extent possible; implement procedures to avoid the introduction of invasive or exotic species; for temporary impacts, if vegetation must be removed during the construction process, replant native vegetation at the conclusion of the activity.
Biological Resources - Wildlife and Habitat
Tiered EA/EIS evaluating wildlife and habitat impacts and mitigation required if proposed activity would: disrupt or disturb nearby wildlife populations or violates local, state, tribal or federal regulations which protect wildlife and their habitat.
Factors to consider whether tiered EA/EIS is required: wildlife and habitat is present in the activity area and will be disturbed; high levels of dust or vehicle emissions will be released; loud noise will be introduced; intense light pollution will be introduced; activities will be taking place during the time of year that nearby wildlife are particularly sensitive (such as nesting or breeding season), increased foot and vehicle traffic present the risk for the introduction of invasive or exotic species inadequate; insufficient waste collection, storage, transport, and disposal protocols.
Sample mitigation measures: avoid construction in areas of sensitive wildlife and habitat; avoid construction activities during breeding or nesting seasons; improve waste management protocols if not currently sufficient; see mitigation measures described under Geology, Topography, and Soils and Water Resources to minimize runoff to nearby water bodies.
Biological Resources- Federally Protected Species
Tiered EA/EIS evaluating federally protected impacts and mitigation required if proposed activity would: result in the take of a migratory bird or T&E species or led to impacts on to the critical habitat of a T&E species.
Factors to consider whether tiered EA/EIS is required: there are federally protected species in the project area; the project area is in close proximity to a T&E's species' critical habitats; high levels of dust or vehicle emissions will be release; loud noise will be introduced to the activity area; intense light pollution will be introduced to the activity area; construction will be taking place during the time of year that nearby wildlife are particularly sensitive (such as nesting or breeding season); increased foot and vehicle traffic present the risk for the introduction of invasive or exotic species inadequate; insufficient waste collection, storage, transport, and disposal protocols.
Sample mitigation measures: avoid construction in areas that present the potential impact federally protected species; adjusting construction timeline to avoid certain times of the year to eliminate or minimize potential impacts; avoid construction during breeding seasons of federally protected species in the activity area, compensatory mitigation* ; improve waste management protocols if not currently sufficient.
Cultural Resources- Historical Structures and Archaeological Resources
Tiered EA/EIS evaluating cultural resource impacts and mitigation required if proposed activity would: directly or indirectly diminish a structure's or cultural resources' integrity or historic or cultural significance or equate to an "adverse effect" determination under Section 106 of the NHPA.

Chapter 4. Impacts Analysis: **4.2 Construction Impacts**

Interior and Exterior Construction Activities
<p>Factors to consider whether tiered EA/EIS is required: activity involves a historic structure or is located within a historic district; building alterations have the potential to impact characteristics or integrity of a specific building or surrounding area; proposed ground disturbance or use of heavy construction equipment affecting an archaeological resource or historic area.</p>
<p>Sample mitigation measures (historic structures and archaeological resources): revise project activities (ex. building additions, interior and exterior alterations, new construction, ground disturbance) to be consistent with The Secretary of the Interior’s Standards, with no adverse effect; produce interpretative media to be implemented after construction.</p> <p>Sample mitigation measures (historic structures): document historic structure prior to demolition or alterations.</p> <p>Sample mitigation measures (archaeological): revise design to avoid archaeologically sensitive areas; use archaeological monitors on site during ground disturbing activities; archaeological data recovery if ground disturbance cannot be avoided; incorporate unintended discovery procedures in the event archaeological resources or human remains are encountered.</p>
Aesthetics
<p>Tiered EA/EIS evaluating aesthetic impacts and mitigation required if proposed activity would: degrade or alter the visual character of the APE or lower the visual quality of the APE.</p>
<p>Factors to consider whether tiered EA/EIS is required: the construction process or new construction will degrade or alter the high visual character and visual quality of the surrounding area.</p>
<p>Sample mitigation measures: follow any applicable state/local guidelines for consideration of aesthetic and visual impacts; limit the amount of vegetation removed or altered and locate activities to limit obstruction of views; match the style, height, and colors of new facilities to surrounding buildings.</p>
Workplace Safety and Health
<p>Tiered EA/EIS evaluating workplace safety and health impacts and mitigation required if proposed activity would: violate OSHA’s General Duty Clause or other OSHA workplace safety and health standards and regulations applicable to the proposed activity; pose an immediate threat to the health and safety of the workers or public.</p>
<p>Factors to consider whether tiered EA/EIS is required: there are not sufficient workplace safety protocols in place for the construction process.</p>
<p>Sample mitigation measures: conduct a risk assessment to identify health and safety concerns; replace hazardous equipment or substances with something less dangerous; implement engineering controls meant to isolate workers from workers from risk (e.g. protecting workers by installing guardrails or elevating work platforms; supply and enforce the use of personal protective equipment (such as safety glasses, hard hats and respirators); implement avoidance and minimization measures such as posting signs in work areas that alert people to possible hazards; for interior construction, relocate workers that may be impacted by noise for the duration of the construction period.</p>
Environmental Justice
<p>Tiered EA/EIS evaluating environmental justice impacts and mitigation required if proposed activity would: lead to disproportionately high and adverse human health or environmental effects on environmental justice populations.</p>
<p>Factors to consider whether tiered EA/EIS is required: presence of environmental justice populations in the area; there are pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area, the proposed action presents the potential for impacts on the human environment.</p>
<p>Sample mitigation measures: consider alternative locations; implement mitigation measures specific to other resource areas to minimize negative impacts to environmental justice communities.</p>

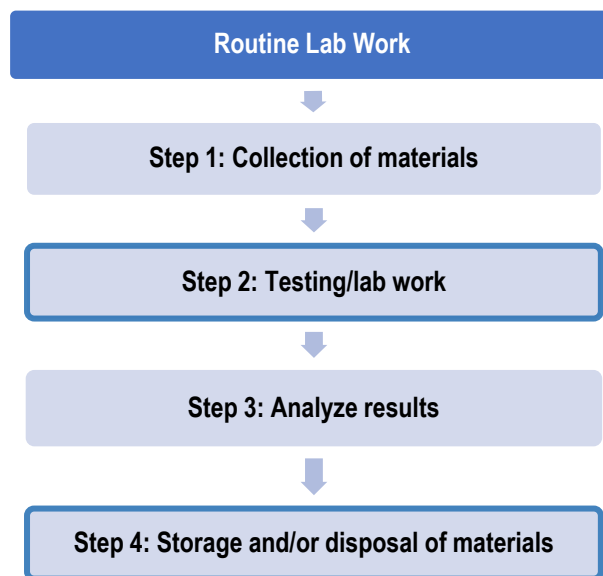
* Endangered and Threatened Wildlife and Plants - Endangered Species Act Compensatory Mitigation Policy: Compensatory mitigation includes actions such as permittee-responsible mitigation, conservation banking, in lieu fee programs, and other third-party mitigation mechanisms. Guidance on compensatory mitigation can be found in the ESA Compensatory Mitigation Policy found at 81FR 95316.

4.3 Routine Laboratory Impacts

Routine laboratory activities are limited to indoor activities in existing lab space that utilize known or accepted methodology and industry standard equipment to achieve known outcomes. OJP funds lab work activities ranging from forensic biology lab work to firearm testing activities. Routine lab work includes research funded by OJP as well as intramural research conducted by OJP scientists. Routine lab work does not include body decomposition research or protective equipment standards development activities, which are activities that are discussed [Sections 4.5](#) and [4.6](#), respectively.

While potential impacts may vary based on the type of lab work, all routine lab work activities follow the same process as shown in [Figure 4](#). Routine lab work first involves the collection of materials (Step 1), followed by testing (Step 2) and analysis (Step 3). The final step includes the storage and/or disposal of the tested materials (Step 4). Steps 2 and 4 present the potential for impacts. Potential impacts from [Routine Lab Work](#) are discussed in the resource area sections below ([Section 4.3.2](#)).

Figure 4. Typical OJP-Funded Routine Lab Work Activities Process



[Table 17](#) is provided at the end of this impacts section listing [Requirements for Further Analysis and Mitigation Measures](#). If an individual activity being considered for funding or implementation triggers further analysis, the resource impacts may be mitigated by the mitigation measures listed in the table. If the activity under consideration is not covered by this PEA, a separate CATEX determination, EA, or EIS will be required.

4.3.1 Resource Areas Dismissed from Analysis

The following resource areas have been dismissed from further analysis. As the scope of this analysis is limited to indoor activities, routine lab work activities do not have the potential to impact these resource areas.

Geology, Topography, and Soils

Routine lab work activities take place exclusively indoors and have no potential to result in substantial erosion or loss of topsoil that significantly reduces vegetation or soil function. There is no potential for geology, topography, or soils impacts.

Geology, Topography, and Soils - Prime and Unique Farmland

Routine lab work activities take place exclusively indoors at existing facilities and have no potential to convert existing farmland to any other use. There is no potential for prime or unique farmland impacts.

Water Resources - Wetlands

Routine lab work activities take place exclusively indoors and at existing facilities and do not involve any activities that have the potential to directly or indirectly impact wetlands that would trigger avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA. There is no potential for wetland impacts.

Biological Resources - Vegetation

Routine lab work activities take place exclusively indoors and do not involve any activities that have the potential to lead to the introduction of invasive species, or permanent loss or significant disturbance of natural vegetation communities. There is no potential for vegetation impacts.

Cultural Resources - Historic Structures

Routine lab work activities take place exclusively indoors and could potentially take place in historic structures. Even under the circumstances where routine lab work activities are carried out in a historic structure, the scope of activities for this work does not involve actions (such as making building alterations) that would have the potential to directly or indirectly diminish the integrity or significance of historic structure(s) or equate to an “adverse effect” determination under Section 106 of the NHPA. There is no potential for historic structure impacts.

Cultural Resources - Archaeological Resources

Routine lab work activities take place exclusively indoors and do not involve ground disturbance or any other activities with the potential to directly or indirectly diminish the historic or cultural significance of archaeological resources or equate to an “adverse effect” determination under Section 106 of the NHPA. There is no potential for archaeological resource impacts.

Aesthetics

Routine lab work activities take place exclusively indoors and do not involve any activities that present the potential to degrade or alter the visual character or substantially lower the visual quality of the aesthetics of the surrounding area. There is no potential for aesthetic impacts.

4.3.2 Analysis of Resource Areas

The following sections consider the potential impacts of routine lab work activities and the no action alternative for the resource areas that have not been dismissed from analysis.

Land Use

This section discusses zoning and transportation impacts.

Zoning

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to zoning.

PROPOSED ACTION

Most OJP-funded routine lab work activities take place in existing lab facilities that are properly zoned for the proposed use.

The primary factor that influences significance is if the facility location is properly zoned for the proposed routine lab work activities. This factor is also detailed in [Table 17](#) included at the end of [Section 4.3.3](#). With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to conflict with any local, state, or federal land use plans or local zoning regulations. Therefore, no significant zoning impacts are anticipated from routine lab work activities.

Transportation

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to transportation.

PROPOSED ACTION

Routine lab work activities take place inside existing lab facilities located in developed areas. Due to the regularity of routine lab work, these activities are not expected to require a large influx of additional staff to an extent that may significantly increase traffic volume in the area. It is expected that if additional staff was needed, the research facility and the surrounding, developed area would be adequately supported by the existing transportation infrastructure.

The primary factor that influences significance is whether a large number of staff would be required to conduct routine lab work within the lab over a long period of time, to a degree that the lab facility does not currently experience, that would result in an increase in traffic and/or parking needs that existing transportation infrastructure would be unable to support. This factor is also detailed in [Table 17](#) included at the end of [Section 4.3.3](#). With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to lead to a traffic increase or change that would permanently upset the normal flow of traffic or require the expansion of existing public transit system, existing roadways, or transportation facilities, require the need for the repair of an existing major road, or the

Chapter 4. Impacts Analysis: 4.3 Routine Laboratory Impacts

establishment of a new road. Therefore, no significant transportation impacts are anticipated from routine lab work activities.

Air Quality

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to air quality.

PROPOSED ACTION

Routine lab work may include experiments that have the potential to result in limited air pollution (e.g., the use of certain chemicals in experiments and carrying out controlled burns in fire labs to research arson investigations). It is anticipated that most routine lab work activities would be conducted inside lab facilities where the use of industry standardized lab equipment (e.g., fume hoods) are designed to filter, minimize, or not emit any pollutants.

Factors that influence significance include the amount of air pollution that results from the routine lab activities, the air pollution reduction measures already in place at the facility, if all equipment that will be used has adequate permitting with respect to air quality (if applicable), and if the lab facility is in a non-attainment area. These factors are also detailed in [Table 17](#) included at the end of [Section 4.3.3](#). With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to generate emissions that exceed the de minimis threshold of the NAAQS established under the CAA or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS. Therefore, no significant air quality impacts are anticipated from routine lab work activities.

Solid and Hazardous Waste

This section discusses solid and hazardous waste impacts.

Solid Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no solid waste impacts.

PROPOSED ACTION

Routine lab work results in the generation of solid waste. Solid waste from lab activities could include non-hazardous laboratory materials, used gloves, paper trash, used forensic analysis and testing equipment, and packaging trash. Firearms testing activities could produce spent shots including lead, copper, and brass bullets (which are considered solid waste when collected and discarded properly). Routine lab work analyzing forensic biological material could produce regulated medical waste (e.g., blood and tissue). However, OJP requires all applicants undertaking routine lab work activities to use waste contracting companies or in-house/custodian staff whose operations are compliant with the hazardous and non-hazardous

Chapter 4. Impacts Analysis: 4.3 Routine Laboratory Impacts

waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly.

Factors that influence significance include whether a facility has adequate waste collection, storage, transport, and disposal protocols and procedures in place to manage solid waste. These factors are also detailed in [Table 17](#) included at the end of [Section 4.3.3](#). With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to result solid waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant solid waste impacts are anticipated from routine lab work activities.

Hazardous Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no hazardous waste impacts.

PROPOSED ACTION

Routine lab work activities could lead to the generation of hazardous waste. Routine lab work activities often involve the use of chemicals and reagents that may be hazardous. However, OJP requires all applicants undertaking routine lab work activities to use waste contracting companies or in-house/custodian staff whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly.

Factors that influence significance include whether a facility has adequate waste collection, storage, transport, and disposal protocols and procedures in place to manage hazardous waste. These factors are also detailed in [Table 17](#) included at the end of [Section 4.3.3](#). With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to result in hazardous waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant hazardous waste impacts are anticipated from routine lab work activities.

Energy

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no energy impacts.

PROPOSED ACTION

Routine lab work activities take place inside existing lab space with energy infrastructure, utilities, and industry standard lab equipment (such as microscopes, centrifuges, and fumes hoods) already in place and in use. Therefore, facilities where routine lab work activities take place have a baseline energy usage that is adequately supported by the facility's existing energy infrastructure, unless the facility is located in an area with existing energy scarcity issues (such as regular occurrences of energy shortages and outages). Alternatively, routine lab work activities present the potential for energy impacts if the proposed work requires the introduction and use

Chapter 4. Impacts Analysis: 4.3 Routine Laboratory Impacts

of new equipment that is not currently in use at the lab facility and the new equipment has a high-energy demand compared to the baseline energy demand of the current operations of the lab facility.

Factors that influence significance include if the facility is located in an area with energy scarcity issues (such as regular occurrences of energy shortages and outages), whether the routine lab work would require higher energy use compared to the existing energy use of the lab facility, and the access to and usage of renewable energy. These factors are also detailed in [Table 17](#) included at the end of [Section 4.3.3](#). With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to lead to a significant increase in energy consumption as compared to existing energy consumption or have energy requirements that exceed an area's available energy supply as defined and established by local, municipal, county, tribal, or metropolitan region's energy codes and policies. Therefore, no significant energy impacts are anticipated from routine lab work activities.

Noise

Please note, this section is limited to the discussion of how noise produced from routine lab work activities may impact community noise levels. Potential noise impacts that are specific to Workplace Health and Safety, Wildlife and Habitat, and Federally Protected Species are discussed in the corresponding sections for those resource areas.

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts from noise.

PROPOSED ACTION

Routine lab work activities take place inside existing lab space using industry standard equipment and are not expected to generate noise that leads to prolonged exposure of people to noise that exceeds applicable local, state, or federal noise regulations. [Table 16](#) provides predicted sound levels associated with commonly used lab equipment. Routine lab work activities are limited to taking place inside existing structures; therefore, any noise produced as part of routine lab work activities would be dampened by the existing structure, resulting in little to no noise spreading to the exterior of the building to expose people or noise sensitive areas/facilities.

Table 16. Predicted Noise Levels for Routine Lab Work Equipment⁷⁴

Equipment	Predicted Noise Level
Firing range/Firearm testing	Intermittent noise exceeding 160 dBA
Centrifuge	Up to 65 dBA
Fume hood	45-50 dBA

Some lab work activities may require equipment that produces noise above 65 dBA with the potential to impact the outside environment, such as firearms testing. However, it is anticipated that facilities where firearms testing take place would have adequate soundproofing measures to eliminate any potential noise impacts to the outside community.

Chapter 4. Impacts Analysis: **4.3 Routine Laboratory Impacts**

Factors that influence significance include whether the lab equipment produces noise above 65 dBA, if a facility has sound proofing measures to adequately reduce the noise that will result from the proposed routine lab activities to minimize impacts to the outside environment, and the presence of sensitive noise receptors in the area (residences, schools, hospitals, parks, etc.). These factors are also detailed in **Table 17** included at the end of **Section 4.3.3**. With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to generate noise that leads to prolonged exposure of people, or noise sensitive areas/facilities that violates applicable local, state, or federal noise regulations. Therefore, no significant noise impacts are anticipated from routine lab work activities.

Water Resources

This section discusses water quality, surface water, groundwater, federally protected water resources, and floodplain impacts. Please note, the “Wetlands” resource area has been dismissed from further analysis, as discussed in **Section 4.3.1**.

Water Quality, Surface Water, Groundwater and Federally Protected Water Resources

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no water resource impacts.

PROPOSED ACTION

Routine lab work activities take place inside existing laboratory facilities with waste management protocols in place to ensure materials, waste, and residues are not released or emptied into any water resources or otherwise disposed of in a manner that has the potential to contaminate water resources. Routine lab work activities would not directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS; or violate TMDL targets; or violate applicable state, tribal, or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers). Additionally, routine lab work activities would not result in significant changes in groundwater discharge or recharge patterns, or the availability of surface or groundwater, as routine lab work activities do not require a high input of water.

Factors that influence significance include if a facility has adequate waste collection, storage, transport, and disposal protocols and procedures in place, if a facility is in close proximity to any water bodies or resources, and if the routine lab work activities require a high input of water. These factors are also detailed in **Table 17** included at the end of **Section 4.3.3**. With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS; violate TMDL targets violate applicable state, tribal, or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers); result in significant changes in groundwater discharge or recharge patterns, or the availability of surface or groundwater. Therefore, no significant water quality, surface water, groundwater, or federally protected water resource impacts are anticipated from routine lab work activities.

Chapter 4. Impacts Analysis: 4.3 Routine Laboratory Impacts

Floodplains

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to floodplains.

PROPOSED ACTION

It is expected that routine lab work activities take place inside existing laboratory facilities located either outside a floodplain or in a facility that is compliant with all state and local floodplain ordinances (including maintaining adequate flood insurance), and would not lead to directly or indirectly altering a floodplain enough to present a substantial increased flood danger to the area or if the proposed activity is noncompliant with applicable state or local floodplain ordinances, or federal requirements (such as under E.O. 11988 and E.O. 13690). Routine lab work would present the potential for impacts if these qualifications were not met. If routine lab work activities were taking place in a facility located in a floodplain, there would be no potential for floodplain soils to be disturbed as routine lab work activities are limited to occurring indoors.

Factors that influence significance include if a facility is located in a floodplain and that facility is compliant with all state and local floodplain ordinances (including maintaining adequate flood insurance). These factors are also detailed in [Table 17](#) included at the end of [Section 4.3.3](#). With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to directly or indirectly alter a floodplain to present a substantial increased flood danger to the area or result in noncompliance with applicable state or local floodplain ordinances, or federal requirements. Therefore, no significant floodplain impacts are anticipated from routine lab work activities.

Biological Resources

This section discusses wildlife and habitat, and federally protected species impacts. Please note, the “Vegetation” resource area has been dismissed from further analysis, as discussed in [Section 4.3.1](#).

Wildlife and Habitat

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to wildlife or habitat.

PROPOSED ACTION

Routine lab work activities take place inside existing lab space and would not likely disrupt or disturb nearby wildlife populations, or violate local, state, tribal, or federal regulations protecting wildlife and habitats. Because routine lab activities are limited to taking place inside existing facilities, potential wildlife impacts are limited to impacts as a result of noise pollution. As discussed previously in the analysis of noise impacts, any noise produced as a result of routine lab work activities would be dampened by the existing structure, resulting in little to no noise spreading to the exterior of the building to expose potential wildlife. Furthermore, since routine

Chapter 4. Impacts Analysis: 4.3 Routine Laboratory Impacts

lab work activities take place in existing structures, they generally take place in developed areas that are not in close proximity to any sensitive aquatic or terrestrial wildlife and habitat.

Factors that influence significance include whether the lab equipment produces high decibel noise, if a facility has sound proofing measures to adequately reduce the noise that will result from the proposed routine lab activities to minimize impacts to the outside environment, and the proximity of sensitive wildlife and habitat to the facility. These factors are also detailed in **Table 17** included at the end of **Section 4.3.2**. With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to result in the disruption or disturbance of nearby wildlife populations for a prolonged period of time, over a large area; impact a particularly sensitive or valuable wildlife or habitat resource with permanent implications; or violate local, state, tribal, or federal regulations which protect wildlife and their habitats. Therefore, no significant wildlife and habitat impacts are anticipated from routine lab work activities.

Federally Protected Species

The Wildlife and Habitat “No Action” and “Proposed Action” discussions above are applicable impacts analyses for the federally protected species resource area.

In addition to the factors listed in the Wildlife and Habitat section above, the significance of impacts for federally protected species would vary at the site level depending on the presence of federally protected species in the area, and proximity to their critical habitats. These factors are also detailed in **Table 17** included at the end of **Section 4.3.3**. With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to result in the take of a migratory bird or T&E species or led to impacts on to the critical habitat of a T&E species. Therefore, no significant federally protected species impacts are anticipated from routine lab work activities.

Workplace Safety and Health

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to workplace safety and health.

PROPOSED ACTION

As discussed throughout **Section 4.3.2**, potential impacts that have the potential to affect the health and safety of the public, such as contamination, are not anticipated to be significant as a result of routine lab work activities. Therefore, these activities do not have the potential to pose an immediate threat to the health and safety of the public.

Routine lab work activities could lead to impacts on workplace safety and health. Potential impacts include:

- **Temporary or long-term exposure of workers to hazardous chemicals and substances:** Chemicals and reagents used in labs have the potential to lead to acute toxicity or persistent/chronic health effects on humans and the environment if not properly used

Chapter 4. Impacts Analysis: 4.3 Routine Laboratory Impacts

and stored.⁷⁵ Impacts could result from inhalation, ingestion, skin and/or eye contact, and skin absorption of hazardous chemicals/substances, exposures to airborne contaminants.

- **High noise levels:** A lab might include fume hoods, refrigerators, biosafety cabinets, centrifuges, and freezers which have the potential to elevate aggregate noise levels within a lab. Most manufacturers establish noise limits on lab equipment to ensure noise levels fall below OSHA standards (90 dBA is the 8-hour exposure limit).⁷⁶ Routine lab work activities that involve the use of firearms present a heightened potential for noise impacts.
- **Safety concerns associated with the use of firearms:** It is anticipated that if routine lab work activities require the use of firearms, these would be carried out in facilities that are regularly used for similar activities and would be carried out by professionals that are adequately trained and that use appropriate personal protective equipment.

Although routine lab work activities present the potential for workplace safety and health impacts, OJP requires all applicants to carry out routine lab work activities at laboratories that comply with all applicable OSHA regulations, including standards for laboratories and the General Duty Clause, which requires employers to provide a safe and hazard-free work environment. As part of a laboratory's compliance with all applicable OSHA regulations, it is anticipated that labs would have existing employee protection plans in place to limit workplace safety and health impacts. Examples of potential workplace health and safety protocols include the use of fume hoods, ventilation systems, and required personal protective equipment when appropriate to minimize potential impacts from airborne contaminants and high-decibel noise. Compliance with these regulations minimize the potential for workplace health and safety impacts.

Factors that influence significance include if the lab facility has a history of violations of workplace safety and health conditions, if the OSHA General Duty Clause or OSHA laboratory standards have been violated, and if the facility has sufficient workplace safety protocols in place with respect to the use of hazardous materials and firearms, or exposure to high noise levels. These factors are also detailed in [Table 17](#) included at the end of [Section 4.3.3](#). With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to violate OSHA's General Duty Clause or other OSHA workplace safety and health standards and regulations or pose an immediate threat to the health and safety of the workers or public. Therefore, no significant workplace safety and health impacts are anticipated from routine lab work.

Environmental Justice

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to environmental justice.

PROPOSED ACTION

If routine lab work activities occur in an area with a high percentage of minority or low-income populations, routine lab work activities have the potential to result in environmental justice impacts. If a project is identified as being in an area with the presence of environmental justice population(s) potential environmental justice impacts must be considered. Where environmental

Chapter 4. Impacts Analysis: **4.3 Routine Laboratory Impacts**

justice populations are present, the potential for otherwise non-significant impacts to resources (such as solid or hazardous waste) must be considered in light of their potential to be significant in environmental justice populations. Additionally, any pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area must be considered. However, as discussed throughout **Section 4.3**, routine lab work activities do not present the potential to result in significant human health or environmental effects.

Factors that influence significance include the concentration of environmental justice populations in the area, any pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area, and the significance of other impacts to the human environment as a result of the routine lab work. These factors are also detailed in **Table 17** included at the end of **Section 4.3.3**. With the application of best management practices and mitigation measures when needed, routine lab work activities are not expected to result in significant impacts and are not likely to result in disproportionately high and adverse human health or environmental effects on environmental justice populations. Therefore, no significant environmental justice impacts are anticipated from routine lab work activities.

4.3.3 Requirements for Further Analysis and Mitigation Measures

As discussed throughout **Section 4.3.2**, significant impacts are not expected for OJP-funded routine lab work activities. However, OJP must consider each proposed activity individually, based on the scope of the activity in its unique location, including the surrounding resources and populations that could potentially be impacted. The following table should be reviewed for each proposed routine lab work activity to make an individual determination as to whether further NEPA analysis is required for that specific activity.

The table below explains when a tiered analysis (EA or EIS) is required to evaluate potentially significant impacts based on the significance criteria defined in this PEA. The table also lists factors to help OJP with this determination. The tiered analysis should be limited to resource areas that have not already been sufficiently covered by this PEA and may have significant impacts.

- A **tiered EA** is required if a proposed activity may have significant impacts, or if there is incomplete information to determine if impacts may be significant.
- A **tiered EIS** is required if the proposed activity has significant impacts, and those significant impacts will not be mitigated below the significance level.

If a tiered EA identifies significant impacts, OJP must implement mitigation measures to reduce the significance of those impacts below the significance criteria threshold and list these measures in the finding of no significant impact (FONSI), if determined, for the tiered EA. **If a tiered EA identifies significant impacts and mitigation measures are not identified to mitigate impacts below the level of significance, then OJP must prepare an EIS.** See the “sample mitigation measures” in this table for recommended measures to reduce the significance of impacts. Note that other mitigation measures may be used instead of the listed mitigation measures if they reduce impacts below the level of significance and are approved by OJP.

Cumulative Impacts

When evaluating whether a tiered NEPA analysis is required, OJP must determine if a proposed activity has the potential for significant cumulative impacts in the context of past, ongoing, and reasonably foreseeable future actions within or near the area of potential effect for the proposed action. OJP must consider federal and non-federal actions, regardless of the funding source, when considering potential cumulative impacts. Cumulative impacts must be evaluated for each proposed activity.

A tiered NEPA analysis evaluating potentially significant cumulative impacts is required if the proposed activity, in context of other past, ongoing, or future activities, would exceed the capacity of existing infrastructure (energy supply, water supply, etc.) or contribute to resource issues in the area. Factors to consider whether a tiered NEPA analysis is required to evaluate cumulative impacts include:

- Other actions (past, present, and reasonably foreseeable future actions) within or near the area of potential effect that may have an environmental impact.
- Resource issues (e.g., flooding) and sensitive environmental resources (e.g., endangered species, wetlands) in or near the area of potential effect where the addition of the proposed activity in the context of past, present, and reasonably foreseeable future actions could increase the potential for significant cumulative impacts.

Table 17. Routine Laboratory Activities Requirements for a Tiered EA/EIS and Sample Mitigation Measures

Routine Laboratory Activities	
Land Use – Zoning	
Tiered EA/EIS evaluating transportation impacts and mitigation required if proposed activity would: conflict with any local, state, or federal land use plans or local zoning regulations.	
Factors to consider whether tiered EA/EIS is required: the facility location is not properly zoned for the proposed routine lab work activities or is otherwise incompatible with uses in the vicinity of the lab.	
Sample mitigation measures: obtain a zoning variance.	
Land Use – Transportation	
Tiered EA/EIS evaluating transportation impacts and mitigation required if proposed activity would: cause a traffic increase or change that would permanently upset the normal flow of traffic or require the expansion of existing public transit systems, require a major road repair or the establishment of a new major road.	
Factors to consider whether tiered EA/EIS is required: a large number of staff would be required to work within a lab facility over a long period of time, to a degree that the lab facility does not currently experience, that would result in an increase in traffic and/or parking needs that existing transportation and infrastructure would be unable to support.	
Sample mitigation measures: develop a transportation management plan with community outreach and communicate transportation impacts; expand parking capacity at the facility.	
Air Quality	
Tiered EA/EIS evaluating air quality and mitigation required if proposed activity would: generate emissions exceeding de minimis threshold of NAAQS or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS.	
Factors to consider whether tiered EA/EIS is required: the activities result in high emission levels; the lab facility does not have adequate air pollution reduction measures in place; equipment does not have proper permitting with respect to air quality; the lab facility is in a non-attainment area.	
Sample mitigation measures: reduce the number of routine lab activities that result in air pollution; implement new air pollution reduction measures at the lab facility; obtain adequate air quality permitting for equipment.	
Solid and Hazardous Waste	
Tiered EA evaluating solid and hazardous waste impacts and mitigation required if proposed activities would: result in improper collection, storage, transportation, or disposal of solid and/or hazardous waste per local, state, tribal, or federal requirements.	
Factors to consider whether tiered EA/EIS is required: there are inadequate or insufficient waste collection, storage, transport, and disposal protocols.	
Sample mitigation measures: improve waste management protocols if not currently sufficient; implement spill plans if not currently in place.	
Energy	
Tiered EA/EIS evaluating energy impacts and mitigation required if proposed activities would: result in a significant change in energy consumption as compared to existing energy consumption or if energy requirements exceed the area's available energy supply as defined and established by local, municipal, county, or metropolitan region's energy codes and policies.	
Factors to consider whether tiered EA/EIS is required: the area the routine lab work activities will be taking place has energy scarcity issues (such as regular occurrences of energy shortages and outages); the equipment being used has higher energy usage requirements compared to the existing energy use of the lab facility.	
Sample mitigation measures: use more energy-efficient equipment; reduce the amount of routine lab work activities that are energy intensive; avoid operating during peak energy times in the area.	

Chapter 4. Impacts Analysis: **4.3 Routine Laboratory Impacts**

Routine Laboratory Activities
Noise
Tiered EA/EIS evaluating noise impacts and mitigation required if proposed activity would: lead to prolonged exposure of people, or noise sensitive areas/facilities to noise that violated applicable local, state, or federal noise regulations.
Factors to consider whether tiered EA/EIS is required: the lab facility has inadequate sound proofing measures for the activities that will be taking place; there are sensitive noise receptors in the area (residences, schools, hospitals, parks, etc.).
Sample mitigation measures: increase sound proofing measures at the lab facility; avoid noise polluting activities at certain times of day or year (depending on the surrounding sensitive noise receptors).
Water Resources - Water Quality, Surface Water, Groundwater, Federally Protected Water Resources
Tiered EA/EIS evaluating water resource impacts and mitigation required if proposed activities would: directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS; violate TMDL targets; or result in significant changes in the availability of surface water or groundwater; or violate applicable state, tribal or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers).
Factors to consider whether tiered EA/EIS is required: activities are in close proximity to nearby water bodies, aquifers, or federally protected water resources; routine lab activities require a high input of water; the facility has inadequate or insufficient waste collection, storage, transport, or disposal protocols.
Sample mitigation measures: improve waste management protocols if not currently sufficient; implement spill plans if not currently in place.
Water Resources – Floodplains
Tiered EA/EIS evaluating floodplain impacts and mitigation required if proposed activity would: directly or indirectly alter a floodplain enough to present a substantial increased flood danger to the area or if the proposed activity is noncompliant with applicable state or local floodplain ordinances, or federal requirements (such as under E.O. 11988 and E.O. 13690).
Factors to consider whether tiered EA/EIS is required: the lab facility is located in a floodplain and is noncompliant with applicable state or local floodplain ordinances (e.g., maintaining adequate flood insurance).
Sample mitigation measures: ensure facility compliance with all applicable floodplain ordinances.
Biological Resources - Wildlife and Habitat
Tiered EA/EIS evaluating wildlife and habitat impacts and mitigation required if proposed activity would: disrupt or disturb nearby wildlife populations or violates local, state, tribal, or federal regulations which protect wildlife and their habitat.
Factors to consider whether tiered EA/EIS is required: wildlife and habitat are present in the activity area; the lab facility has inadequate sound proofing measures for the activities that will be taking place.
Sample mitigation measures: decrease the frequency of routine lab work activities that result in significant noise pollution or avoid performing those activities during certain times of year (ex. nesting or breeding season); avoid areas near sensitive wildlife and habitat completely.
Biological Resources- Federally Protected Species
Tiered EA/EIS evaluating federally species impacts and mitigation required if proposed activity would: result in the take of a migratory bird or T&E species or led to impacts on to the critical habitat of a T&E species.
Factors to consider whether tiered EA/EIS is required: federally protected species and/or their critical habitat are in the area; the lab facility has inadequate sound proofing measures for the activities that will be taking place.
Sample mitigation measures: see mitigation measures described under Biological Resources – Wildlife and Habitat .
Workplace Safety and Health
Tiered EA/EIS evaluating workplace safety and health impacts and mitigation required if proposed activity would: violate OSHA’s General Duty Clause or other OSHA workplace safety and health standards and regulations applicable to the proposed activity; or pose an immediate threat to the health and safety of the workers or public.

Chapter 4. Impacts Analysis: **4.3 Routine Laboratory Impacts**

Routine Laboratory Activities
Factors to consider whether tiered EA/EIS is required: lab facility has a history of violations of workplace safety and health conditions; the lab facility does not have sufficient workplace health and safety protocols in place with respect to the use of hazardous materials and firearms, or exposure to high noise levels.
Sample mitigation measures: supply and enforce the use of personal protective equipment (such as earmuffs, respirators, or face shields); implementation of additional worker training or new training programs specific to the routine lab work to be conducted; utilization of engineering controls, such as laboratory airflow and vacuum lines, sound-dampening equipment, etc.; laboratory or facility equipment upgrades.
Environmental Justice
Tiered EA/EIS evaluating environmental justice impacts and mitigation required if proposed activity would: lead to disproportionately high and adverse human health or environmental effects on environmental justice populations.
Factors to consider whether tiered EA/EIS is required: presence of environmental justice populations in the area; the presence of pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area; the proposed action presents the potential for impacts on the human environment.
Sample mitigation measures: consider alternative locations; implement mitigation measures specific to other resource areas to minimize negative impacts to environmental justice communities.

4.4 Training Impacts

Training Activities within the scope of this PEA include indoor training activities and outdoor firearms training activities (with some exceptions listed below). Indoor training activities include classroom, indoor lab, and computer training using existing facilities. Indoor training may be administrative in nature or be lab trainings that involve controlled burns or the use of chemicals or toxic substances. Indoor training activities also include firearms trainings at existing indoor firing ranges. Outdoor training activities within the scope of this PEA are limited to firearms trainings that take place at existing outdoor firing ranges.

The following training activities are not within the scope of this PEA:

- Indoor training activities that involve the use of explosives.
- Indoor training activities that involve the use of firearms that are NOT at an existing indoor firing range that is permitted for such activities.
- All outdoor training activities that are NOT firearms trainings at an existing outdoor firing range that is adequately permitted for such activities.

All training activities that are outside the scope of this PEA would require a separate NEPA analysis (CATEX determination, EA or EIS).

OJP typically provides funding to applicants to attend trainings, rather than funding the training activity itself although, in some cases, OJP may be the entity hosting the training event. Whether OJP is providing funding to an applicant to attend a training hosted by a third party, or whether OJP is the entity hosting and putting on a training event, the process steps at which there is potential for impacts are the same.

Figure 5 below outlines the process for training activities funded by OJP. In this process, an applicant or OJP makes training arrangements. If the training is being hosted by a third party, these arrangements would be limited to registration, travel, and lodging for the individual attendees. If OJP is the entity hosting the event, these arrangements would include logistics such as: determining the agenda and activities for the event, selecting an event date and venue, and securing other services as needed (e.g., catering services and waste management). This step is considered administrative in nature and does not have the potential for impacts. The second step is traveling to attend the training and the third step is attending the training event, which is typically held in laboratories, classrooms, other existing indoor facilities, or existing indoor or outdoor firing ranges. In this process, Steps 2 and 3 have the potential for impacts. Potential impacts from training activities are discussed in more detail in the resource area sections below (**Section 4.4.2**).

Figure 5. Typical OJP-Funded Training Process

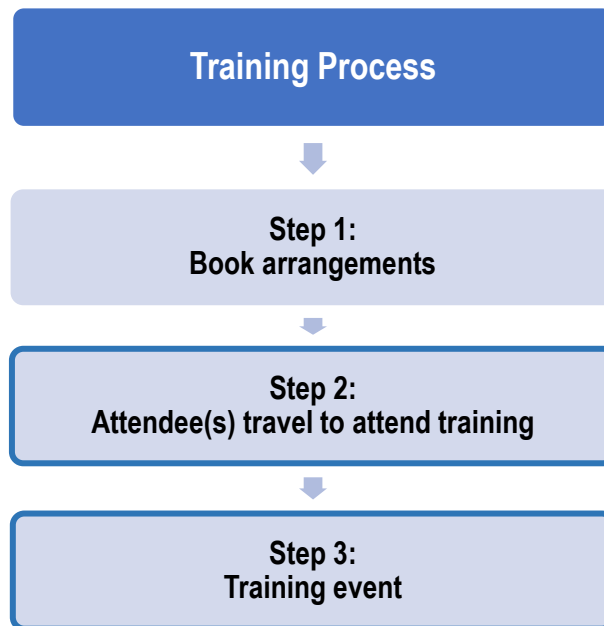


Table 18 is provided at the end of this impacts section listing **Requirements for Further Analysis and Mitigation Measures**. If an individual activity being considered for funding or implementation triggers further analysis, the resource impacts may be mitigated by the mitigation measures listed in the table. If the activity under consideration is not covered by this PEA, a separate CATEX determination, EA, or EIS will be required.

4.4.1 Resource Areas Dismissed from Analysis

The following resource areas have been dismissed from further analysis. Training activities take place inside existing classrooms, at indoor labs, computer labs, conference centers, and at existing indoor and outdoor firing ranges. As the scope of this analysis is limited to these activities in short duration (ranging from a couple of hours to a week), training activities do not have the potential to impact the following resource areas.

Geology, Topography, and Soils - Prime and Unique Farmland

With the exception of existing outdoor firing ranges, potential training activities take place exclusively indoors and have no potential to convert existing farmland to any other use. Outdoor firearms training activities covered under this PEA, would take place at existing outdoor firing ranges that are already in use as firing ranges. This means that any outdoor activities would be carried out on land that is already in use for firing range activities and do not have the potential to convert existing farmland to any other use. The scope of training activities considered under this PEA, do not present the potential for prime or unique farmland impacts.

Cultural Resources – Historic Structures

Indoor training activities could potentially take place in historic structures. Even under the circumstances where indoor training activities are carried out in a historic structure, training activities do not involve actions (such as making building alterations) that would have the potential to directly or indirectly diminish the integrity or significance of historic structure(s) or equate to an “adverse effect” determination under Section 106 of the NHPA. There is no potential for historic structure impacts.

Aesthetics

Training activities take place at existing facilities, although these activities have the potential to occur outside, they do not result in the introduction of new features or circumstances that present the potential to degrade or alter the visual character or substantially lower the visual quality of the aesthetics of the surrounding area. There is no potential for aesthetic impacts.

4.4.2 Analysis of Resource Areas

The following sections provide a complete analysis and consider the potential impacts from the resource areas that have not been dismissed from analysis.

Land Use

This section discusses zoning and transportation impacts.

Zoning

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to land use.

PROPOSED ACTION

Indoor and outdoor firearms training activities are limited to taking place at existing firing ranges or similar facilities that are adequately permitted for such activities. Furthermore, all other training activities are limited to classroom, indoor lab, and computer training and attendance at conferences, workshops, and seminars at existing facilities that are regularly used for training activities. Because these facilities are already being used for training purposes, the training activities conducted as part of the proposed action are expected to be consistent with the existing land use.

The primary factor that influences significance is whether the training location that has been selected is appropriately zoned to allow for the proposed training event. This factor is also listed in **Table 18** included at the end of this **Section 4.4.3**. With the application of best management practices and mitigation measures when needed, training activities are not expected to conflict with local, state, and federal land use plans or local zoning regulations. Therefore, no significant zoning impacts are anticipated from training activities.

Chapter 4. Impacts Analysis: 4.4 Training Impacts

Transportation

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to transportation.

PROPOSED ACTION

Training activities could lead to temporary transportation impacts such as an increase in traffic from attendee(s) traveling to training activities. These impacts would be limited to the duration of the training activity.

Factors that influence significance include the transportation infrastructure in the surrounding area of the training activity, the duration of the training activity, and the number of training attendees. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to lead to a traffic increase or change that would permanently upset the normal flow of traffic or require the expansion of existing public transit systems, existing roadways or transportation facilities, the repair of a major existing road, or the establishment of a new major road. Therefore, no significant transportation impacts are anticipated from training activities.

Air Quality

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to air quality.

PROPOSED ACTION

Indoor and outdoor firearms training activities are limited to taking place at established, existing firing ranges or similar facilities that are adequately permitted for such activities, including any potential air quality impacts. Furthermore, all other training activities that take place in classrooms, conference centers and computer labs are primarily lecture style and administrative in nature with no potential air impacts from training activities. Indoor lab training may include small-scale experiments that have the potential to result in air pollution (e.g., the use of certain chemicals in experiments and carrying out controlled burns for training on arson investigations). However, it is anticipated that indoor lab training activities would be conducted inside lab facilities that use industry standardized equipment (e.g., fume hoods) that is designed to filter, minimize, or not emit any pollutants. Training activities also have the potential to generate air emissions as a result of traveling to attend a training event, but these potential impacts would be short term.

Factors that influence significance include the amount of air pollution that results from training activities, the air pollution reduction measures already in place at the facility, the number of attendees expected to attend training, the distance traveled by attendee(s), and if the training location is in a non-attainment area. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation

Chapter 4. Impacts Analysis: 4.4 Training Impacts

measures when needed, training activities are not expected to generate new emissions or contribute to overall emissions from the training facility that exceed the de minimis threshold of the NAAQS established under the CAA or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS. Therefore, no significant air quality impacts are anticipated from training activities.

Geology, Topography, and Soils

This section discusses geology, topography, and soils impacts. Please note, the “Prime and Unique Farmland” resource area has been dismissed from further analysis, as discussed in [Section 4.4.1](#).

Geology, Topography, and Soils

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to geology, topography, and soils.

PROPOSED ACTION

Training activities that take place indoors in classrooms, conference centers, computer labs, and indoor firing ranges do not present the potential for geology, topography, and soil impacts. For training activities that take place at outdoor firing ranges, as part of best management practices, shooting ranges routinely carry out bullet clean-up activities that have the potential to result in minor soil disturbance. The soil disturbance is generally limited to the surface layer of soil. Examples of such activities include raking and/or sifting bullet fragments from the soil or the use of a vacuum system for the same purpose. These activities are standard practices and are of limited scale (limited to the surface layer of soil) for outdoor firing ranges.⁷⁷

The primary factor that influences significance is whether bullet cleanup methods used by an outdoor firing range present the potential for substantial soil disturbance. This factor is also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to result in substantial erosion, loss, or compaction of topsoil that significantly reduces vegetation or soil function. Therefore, no significant impacts to geology, topography, or soils are anticipated from training activities.

Solid and Hazardous Waste

This section discusses solid and hazardous waste impacts.

Solid Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to solid waste.

Chapter 4. Impacts Analysis: 4.4 Training Impacts

PROPOSED ACTION

Waste may be generated as a result of training activities. Solid waste produced during training activities could include food waste, non-hazardous laboratory materials, used gloves, paper trash, used forensic analysis and testing equipment, and packaging trash. Firearms training activities could produce spent shots including lead, copper, and brass bullets. Lead bullets, if recycled, are considered a scrap metal pursuant to 40 Code of Federal Regulations (CFR) 261.6(a)(3)(ii) and are therefore exempt from RCRA regulation (the potential for hazardous waste impacts if lead bullets are not managed properly are discussed in the Hazardous Waste section below).⁷⁸ Copper and brass bullets do not present the potential to be handled as hazardous waste. Training activities could also involve analyzing forensic biological material which can result in regulated medical waste (e.g., blood and tissue). It is anticipated that facilities where trainings activities are taking place would use waste contracting companies or in-house/custodian staff to properly collect, store, transport, and dispose of all solid waste to ensure compliance with all local, state, tribal, and federal requirements.

The primary factor that influences significance is whether a facility has adequate waste collection, storage, transport, and disposal protocols and procedures in place to manage solid waste. This factor is also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to result in solid waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant solid waste impacts are anticipated from training activities.

Hazardous Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to hazardous waste.

PROPOSED ACTION

Training activities that take place in classrooms, conference centers and computer labs are primarily lecture style, and administrative in nature and do not have the potential to produce hazardous waste. Alternatively, indoor lab training may include small-scale experiments that may result in the generation of hazardous waste, such as from the use of chemicals and reagents. It is anticipated that facilities where training activities would use waste contracting companies or in-house/custodian staff to properly collect, store, transport, and dispose of all hazardous waste to ensure compliance with all local, state, tribal, and federal requirements.

Training activities that take place at indoor and outdoor firing ranges may use lead bullets. As noted above, lead bullets, if recycled, are considered a scrap metal pursuant to 40 C.F.R. 261.6(a)(3)(ii) and are therefore exempt from RCRA regulation. However, spent lead shots are a solid waste that have the potential to pose an imminent or substantial endangerment as a result of lead migration, if not properly managed.⁷⁹ Lead migration is when rainwater causes lead in surface soil to migrate into ground water and eventually into water system. Even at low exposure levels, lead can be harmful to human health.⁸⁰

Chapter 4. Impacts Analysis: 4.4 Training Impacts

This potential adverse impact to water resources and human health is minimized when best management practices are used for bullet and shot containment, preventing lead migration, and lead removal and recycling. It is anticipated that the firing ranges used for training activities would use adequate best management practices that allow for lead bullets to be treated as scrap metal (solid, nonhazardous waste) and to adequately address long-term lead contamination and relevant human health concerns.

Factors that influence significance include whether a facility has adequate waste collection, storage, and disposal protocols and procedures in place to manage hazardous waste, and if a firing range uses adequate best management practices for bullet and shot containment. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to result in hazardous waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant hazardous waste impacts are anticipated from training activities.

Energy

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to energy.

PROPOSED ACTION

Training activities take place at existing classrooms, indoor labs, computer labs, conference centers, and firing ranges with energy infrastructure, utilities, and industry standard lab equipment already in place and in use. Therefore, facilities where training activities take place usually have a baseline energy usage that is adequately supported by the facility's existing energy infrastructure and do not have the potential for impacts to energy. However, if the facility is located in an area with existing energy scarcity issues (such as regular occurrences of energy shortages and outages), training activities can present the potential for energy impacts if the proposed training activities require the introduction and use of new equipment that is not currently in use at the facility and the new equipment has a high-energy demand compared to the baseline energy demand of the current operations of the facility.

Factors that influence significance include if the area where training activities will be taking place has energy scarcity issues (such as regular occurrences of energy shortages and outages) and if training activities would require higher energy use than the existing facility typically requires. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to lead to a significant increase in energy consumption as compared to existing energy consumption or have energy requirements that exceed an area's available energy supply as defined and established by local, municipal, county, tribal, or metropolitan region's energy codes and policies. Therefore, no significant energy impacts are anticipated from training activities.

Noise

Please note, this section is limited to the discussion of how noise produced from training activities may impact community noise levels. Potential noise impacts that are specific to Workplace Health and Safety, Wildlife and Habitat, and Federally Protected Species are discussed in the corresponding sections for those resource areas.

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no noise impacts.

PROPOSED ACTION

Training activities that involve classroom and computer training and attendance at conferences, workshops, and seminars take place exclusively indoors and are administrative in nature and do not present the potential to lead to prolonged exposure of people, or noise sensitive areas/facilities that violates applicable local, state, or federal noise regulations.

Indoor lab training activities do present the potential for noise impacts. Any noise produced as a result of lab training activities would be dampened by the existing structure, resulting in little to no noise spreading to the exterior of the building to expose people or noise sensitive areas/facilities.

Indoor and outdoor firearms training activities also present the potential for noise impacts. Firearms training activities are limited to taking place at existing permitted indoor and outdoor ranges. Since these ranges are already in operation, it is anticipated that adequate soundproofing measures would already be in place at indoor firing ranges and that outdoor firing ranges would use best practices to minimize noise impacts to the surrounding area. Furthermore, per the significance criteria for noise defined in [Section 4.1](#), noise impacts may only be considered significant if they result in *prolonged* exposure of people or noise sensitive facilities to noise that violates applicable local, state, or federal noise regulations. Due to the short-term nature of training activities (ranging from a couple of hours to a week), generally these activities do not have the potential to result in prolonged noise exposure and therefore do not present the potential for noise impacts.

Factors that influence significance include whether the equipment being used for training activities produces noise above 65 dBA, if a facility has sound proofing measures to adequately reduce the noise that will result from training activities to minimize impacts to the outside environment, and the duration of the training activities. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to generate noise that leads to prolonged exposure of people, or noise sensitive areas/facilities that violates applicable local, state, or federal noise regulations. Therefore, significant noise impacts are not anticipated from training activities.

Water Resources

This section discusses water quality, surface water, groundwater federally protected water resources, floodplains, and wetlands impacts.

Water Quality, Surface Water, Groundwater, and Federally Protected Water Resources

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no water resource impacts.

PROPOSED ACTION

Training activities that involve classroom and computer training and attendance at conferences, workshops, and seminars take place exclusively indoors and are administrative in nature. Any hazardous or chemical waste that may be produced as a result of indoor lab training activities would be of very limited quantities, due to the small quantities of materials that are required for lab activities and the short duration of training events. Existing facilities where indoor lab trainings are held have waste management protocols in place to ensure materials, waste, and residues are not released or emptied into any water resources or otherwise disposed of in a manner that has the potential to contaminate water resources.

Indoor and outdoor firearms training activities are limited to taking place at established, existing firing ranges or similar facilities that are adequately permitted for such activities. As discussed previously, spent lead shots are a solid waste that have the potential to pose an imminent or substantial endangerment as a result of lead migration, if not properly managed.⁸¹ Lead migration is when rainwater causes lead in surface soil to migrate into ground water and eventually into water system. This potential adverse impact to water resources is minimized when best management practices are used for bullet and shot containment, preventing lead migration, and lead removal and recycling. It is anticipated that the firing ranges used for training activities would use adequate best management practices that allow for lead bullets to be treated as scrap metal (solid, nonhazardous waste) and to adequately address long-term lead contamination concerns.

Furthermore, training activities would not result in significant changes in groundwater discharge or recharge patterns, or the availability of surface or groundwater, as training activities are not expected to require a high input of water.

Factors that influence significance include if a facility has adequate waste collection, storage, transport, and disposal protocols and procedures in place, if a firing range uses adequate best management practices for bullet and shot containment, if a facility is in close proximity to any water bodies or resources, and if the training activities require a high input of water. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS; violate TMDL targets violate applicable state, tribal, or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and

Chapter 4. Impacts Analysis: **4.4 Training Impacts**

wild and scenic rivers); result in significant changes in groundwater discharge or recharge patterns, or the availability of surface or groundwater. Therefore, no significant water quality, surface water, groundwater or federally protected water resource impacts are anticipated from training activities.

Floodplains

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to floodplains.

PROPOSED ACTION

It is expected that training activities take place at existing facilities that are located outside of a floodplain or at existing facilities that are compliant with all state and local floodplain ordinances (including maintaining adequate flood insurance). Outdoor training activities, if they were to occur within a floodplain, do not involve construction, the establishment of new impervious surface, or other activities that have the potential to impact a floodplain directly or indirectly. Training activities would present the potential for impacts if these qualifications were not met.

Factors that influence significance include if a facility is located in a floodplain, if training activities involve any activities with the potential to impact a floodplain directly or indirectly, and if the facility is compliant with all state and local floodplain ordinances, including if the facility maintains adequate flood insurance to properly cover the potential loss of property that may result from a flooding event. These factors are also detailed in **Table 18** included at the end of this **Section 4.4.3**. With the application of best management practices and mitigation measures when needed, training activities are not expected to result in the alteration of a floodplain to present a substantial increased flood danger to the area or result in noncompliance with applicable state or local floodplain ordinances, or federal requirements. Therefore, no significant floodplain impacts are anticipated from training activities.

Wetlands

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to wetlands.

PROPOSED ACTION

Training activities that take place indoors in classrooms, conference centers, computer labs, and indoor firing ranges take place exclusively indoors and do not present the potential for wetland impacts.

Training activities that take place at existing, outdoor firing ranges present the potential for wetland impacts as a result of ground disturbing activities. Potential ground disturbance is limited to bullet cleanup activities, which are generally limited to the surface layer of soil. Examples of such activities include raking and/or sifting bullet fragments from the soil or the use of a vacuum system for the same purpose.⁸² Therefore, disturbance that is significant enough to trigger

Chapter 4. Impacts Analysis: 4.4 Training Impacts

avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA is not expected.

Factors that influence significance include the presence and proximity of a wetland and if bullet cleanup methods used by an outdoor firing range present the potential for substantial soil disturbance. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures as needed, training activities are not expected to lead to direct or indirect impacts that trigger avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA. Therefore, no significant wetlands impacts are anticipated from training activities.

Biological Resources

This section discusses vegetation, wildlife and habitat, and federally protected species.

Vegetation

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to vegetation.

PROPOSED ACTION

Training activities that take place indoors in classrooms, conference centers, computer labs, and indoor firing ranges take place exclusively indoors and do not present the potential for vegetation impacts.

Training activities that take place at existing, outdoor firing ranges present the potential for vegetation impacts as a result of ground disturbing activities. Potential ground disturbance is limited to bullet cleanup activities, which are generally limited to the surface layer of soil in areas where these activities have been carried out previously where the presence of vegetation is limited. Examples of such activities include raking and/or sifting bullet fragments from the soil or the use of a vacuum system for the same purpose.⁸³ Therefore, disturbance that is significant enough to result in permanent loss or significant disturbance of natural vegetation communities is not expected.

The primary factor that influences significance is if bullet cleanup activities will result in ground disturbance that leads to vegetation removal. This factor is also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures as needed, training activities are not expected to result in the introduction of invasive or exotic species and/or disturbance or permanent loss of natural vegetation communities. Therefore, no significant vegetation impacts are anticipated from training activities.

Wildlife and Habitat

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to wildlife or habitat.

Chapter 4. Impacts Analysis: 4.4 Training Impacts

PROPOSED ACTION

Training activities that involve classroom and computer training and attendance at conferences, workshops, and seminars take place exclusively indoors and are administrative in nature and do not present the potential to disrupt or disturb nearby wildlife populations, or violate local, state, tribal, or federal regulations which protect wildlife and their habitats.

Indoor lab training activities take place inside existing lab space; therefore, potential wildlife impacts are limited to impacts as a result of noise pollution. Any noise produced as a result of lab training activities would be dampened by the existing structure, resulting in little to no noise spreading to the exterior of the building to expose potential wildlife. Furthermore, since lab training activities take place in existing structures, they generally take place in developed areas that are not in close proximity to sensitive wildlife and habitat.

Indoor and outdoor firearms training activities take place at existing firing ranges and do not involve ground disturbance, construction, vegetation removal, or land clearing activities. Therefore, potential wildlife impacts as a result of indoor and outdoor firearms training activities are limited to impacts as result of noise pollution. Firearms training activities are limited to taking place at existing permitted indoor and outdoor ranges. Since these ranges are already in operation, it is anticipated that adequate soundproofing measures would already be in place at indoor firing ranges and that outdoor firing ranges would use best practices to minimize noise impacts to the surrounding area. These facilities are also unlikely to be located in close proximity to sensitive wildlife since they are already in operation and wildlife averse to any noise produced by the ranges would avoid the area.

Factors that influence significance include whether the equipment being used for training activities produces a high decibel noise, if a facility has sound proofing measures to adequately reduce the noise that will result from training activities to minimize impacts to the outside environment, and the proximity of sensitive wildlife and habitat to the training facility. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to result in the disruption or disturbance of nearby wildlife populations for a prolonged period of time, over a large area; impact a particularly sensitive or valuable wildlife or habitat resource with permanent implications; or violate local, state, tribal, or federal regulations which protect wildlife and their habitats. Therefore, no significant wildlife and habitat impacts are anticipated from training activities.

Federally Protected Species

The Wildlife and Habitat “No Action” and “Proposed Action” discussions above are applicable impacts analyses for the federally protected resource area. Additionally, due to the short-term duration of training activities, these activities can be planned to avoid impacts to migratory birds and breeding times of threatened and endangered species if needed.

In addition to the factors listed in the Wildlife and Habitat section above, the significance of impacts for federally protected species would vary at the site level depending on the presence of federally protected species in the area, and proximity to their critical habitats. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best

Chapter 4. Impacts Analysis: 4.4 Training Impacts

management practices and mitigation measures when needed, training activities are not expected to result in the take of a migratory bird or T&E species or led to impacts on to the critical habitat of a T&E species. Therefore, no significant federally protected species impacts are anticipated from training activities.

Cultural Resources

This section discusses archaeological resource impacts. Please note, the “Historic Structures” resource area has been dismissed from further analysis, as discussed in [Section 4.4.1](#).

Archaeological Resources

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to archaeological resources.

PROPOSED ACTION

Potential ground disturbance associated with training activities is limited to bullet clean-up activities at outdoor firing ranges. Soil disturbance for these activities is generally limited to the surface layer of soil. Examples of such activities include raking and/or sifting bullet fragments from the soil or the use of a vacuum system for the same purpose.⁸⁴ Furthermore, these activities take place at established outdoor firing ranges where it is anticipated that similar bullet cleanup activities and associated ground disturbance has taken place regularly in the past. The disturbance of a previously disturbed area reduces the potential of encountering or impacting archaeological resources, as it is likely they would have already been discovered as a result of previous disturbance.

Factors that influence significance include if ground disturbance will take place in an archaeologically sensitive or historic area and ground disturbance that exceeds the depth of previously known disturbance. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to directly or indirectly diminish an archaeological resource’s integrity or historic or cultural significance or equate to an “adverse effect” determination under Section 106 of the NHPA. Therefore, no significant archaeological resources impacts are anticipated from training activities.

Workplace Safety and Health

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to workplace safety and health.

PROPOSED ACTION

As discussed throughout this [Section 4.4.2](#), potential impacts that have the potential to affect the health and safety of the public, such as contamination, are not anticipated to be significant as a result of training activities. Therefore, these activities do not have the potential to pose an immediate threat to the health and safety of the public.

Chapter 4. Impacts Analysis: 4.4 Training Impacts

Training activities could lead to impacts on workplace safety and health. Potential impacts include:

- **Temporary or long-term exposure of workers to hazardous chemicals and/or substances:** Chemicals and reagents that may be used in training activities have the potential to lead to acute toxicity or persistent/chronic health effects on humans and the environment if not properly used and stored.⁸⁵ Impacts could result from inhalation, ingestion, skin and/or eye contact, and skin absorption of hazardous chemicals/substances, exposures to airborne contaminants.
- **High noise levels:** An indoor lab facility used for training activities might include fume hoods, refrigerators, biosafety cabinets, centrifuges, and freezers which have the potential to elevate aggregate noise levels within a lab. Most manufacturers establish noise limits on lab equipment to ensure noise levels fall below OSHA standards (90 dBA is the 8-hour exposure limit).⁸⁶ Training activities that involve the use of firearms present a heightened potential for noise impacts.
- **Safety concerns associated with use of firearms and explosives:** Training activities that involve the use of firearms are limited to taking place at existing established indoor and outdoor firing ranges with adequate safety measures in place.

Although training activities present the potential for workplace safety and health impacts, it is anticipated that all training activities would be compliant with all applicable OSHA regulations, including standards for laboratories and the General Duty Clause, which requires employers to provide a safe and hazard-free work environment as part of a facility's compliance with all applicable OSHA regulations. Compliance with these regulations minimize the potential for workplace safety and health impacts.

Factors that influence significance include if the OSHA General Duty Clause or OSHA laboratory standards will be complied with during training activities, and if the facility has sufficient workplace safety protocols in place with respect to the use of hazardous materials and firearms, or exposure to high noise levels. These factors are also detailed in [Table 18](#) included at the end of this [Section 4.4.3](#). With the application of best management practices and mitigation measures when needed, training activities are not expected to violate OSHA's General Duty Clause or other OSHA workplace safety and health standards and regulations or posed an immediate threat to the health and safety of the workers or public. Therefore, no significant workplace safety and health impacts are anticipated from training activities.

Environmental Justice

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to environmental justice.

PROPOSED ACTION

If training activities take place in an area with a high percentage of minority or low-income populations, training activities have the potential to result in environmental justice impacts. If a project is identified as being in an area with the presence of environmental justice population(s)

Chapter 4. Impacts Analysis: 4.4 Training Impacts

potential environmental justice impacts must be considered. Where environmental justice populations are present, the potential for otherwise non-significant impacts to resources (such as solid and hazardous waste, transportation, or air quality) must be considered in light of their potential to be significant in environmental justice populations.

Factors that influence significance include the concentration of environmental justice populations in the area, the presence of pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area, and the significance of other impacts to the human environment as a result of the activity. These factors are also detailed in **Table 18** included at the end of this **Section 4.4.3**. With the application of best management practices and mitigation measures when needed, training activities are not expected significant impacts for other resource areas and are not likely to result in disproportionately high and adverse human health or environmental effects on environmental justice populations. Therefore, no significant environmental justice impacts are anticipated from training activities.

4.4.3 Requirements for Further Analysis and Mitigation Measures

As discussed throughout **Section 4.4.2**, significant impacts are not expected for OJP-funded training activities. However, OJP must consider each proposed activity individually, based on the scope of the activity in its unique location, including surrounding resources and populations that could potentially be impacted. The following table should be reviewed for each proposed training activity to make an individual determination as to whether further NEPA analysis is required.

The table below explains when a tiered analysis (EA or EIS) is required to evaluate potentially significant impacts based on the significance criteria defined in this PEA. The table also lists factors to help OJP with this determination. The tiered analysis should be limited to resource areas that have not already been sufficiently covered by this PEA and may have significant impacts.

- A **tiered EA** is required if a proposed activity may have significant impacts, or if there is incomplete information to determine if impacts may be significant.
- A **tiered EIS** is required if the proposed activity has significant impacts, and those significant impacts will not be mitigated below the significance level.

If a tiered EA identifies significant impacts, OJP must implement mitigation measures to reduce the significance of those impacts below the significance criteria threshold and list these measures in the finding of no significant impact (FONSI), if determined, for the tiered EA. **If a tiered EA identifies significant impacts and mitigation measures are not identified to mitigate impacts below the level of significance, then OJP must prepare an EIS.** See the “sample mitigation measures” in this table for recommended measures to reduce the significance of impacts. Note that other mitigation measures may be used instead of the listed mitigation measures if they reduce impacts below the level of significance and are approved by OJP.

Cumulative Impacts

When evaluating whether a tiered NEPA analysis is required, OJP must determine if a proposed activity has the potential for significant cumulative impacts in the context of past, ongoing, and reasonably foreseeable future actions within or near the area of potential effect for the proposed action. OJP must consider federal and non-federal actions, regardless of the funding source, when considering potential cumulative impacts. Cumulative impacts must be evaluated for each proposed activity.

A tiered NEPA analysis evaluating potentially significant cumulative impacts is required if the proposed activity, in context of other past, ongoing, or future activities, would exceed the capacity of existing infrastructure (energy supply, water supply, etc.) or contribute to resource issues in the area. Factors to consider whether a tiered NEPA analysis is required to evaluate cumulative impacts include:

- Other actions (past, present, and reasonably foreseeable future actions) within or near the area of potential effect that may have an environmental impact.
- Resource issues (e.g., flooding) and sensitive environmental resources (e.g., endangered species, wetlands) in or near the area of potential effect where the addition of the proposed activity in the context of past, present, and reasonably foreseeable future actions could increase the potential for significant cumulative impacts.

Table 18. Training Activities Requirements for a Tiered EA/EIS and Sample Mitigation Measures

Training Activities
Land Use – Zoning
Tiered EA/EIS evaluating land use impacts and mitigation required if proposed activity would: conflict with any local, state, or federal land use plans or local zoning regulations.
Factors to consider whether tiered EA/EIS is required: the training location that has been selected is not appropriately zoned to allow for the proposed training event.
Sample mitigation measures: obtain a zoning variance.
Land Use – Transportation
Tiered EA/EIS evaluating transportation impacts and mitigation required if proposed activity would: cause a traffic increase or change that would permanently upset the normal flow of traffic or require the expansion of existing public transit systems, require a major road repair or the establishment of a new major road.
Factors to consider whether tiered EA/EIS is required: the transportation infrastructure in the surrounding area is not sufficient to accommodate for the transportation needs associated with the training activity (this may be a result of the training infrastructure in the surrounding area not being robust and a large number of individuals attending the training for multiple days).
Sample mitigation measures: avoid traveling to a third-party training if there is a virtual option; develop informational materials for attendees on transportation options for getting to the training event and to use during the training event; ensure there is adequate parking available at the training venue.
Air Quality
Tiered EA/EIS evaluating air quality and mitigation required if proposed activity would: generate emissions exceeding de minimis threshold of NAAQS or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS.
Factors to consider whether tiered EA/EIS is required: there is a large amount of air pollution that results from training activities; there are not adequate air pollution reduction measures at the facility; the training location is in a non-attainment area; there is a large number of training attendees traveling a long distance to the event.
Sample mitigation measures: reduce the number of training activities that result in air pollution; implement new air pollution reduction measures at the training facility; purchase carbon offsets for attendees that are flying to the event; offer a virtual option; encourage attendees to use public transportation options while at the training event.
Geology, Topography, and Soils
Tiered EA/EIS evaluating geology, topography, and soils impacts and mitigation required if proposed activity would: result in substantial erosion or loss of topsoil that significantly reduces vegetation or soil function.
Factors to consider whether tiered EA/EIS is required: bullet cleanup activities for an outdoor firing range present the potential for substantial soil disturbance.
Sample mitigation measures: use bullet cleanup methods that result in less disturbance; select an alternative firing range that uses bullet cleanup activities that result in less disturbance.
Solid and Hazardous Waste
Tiered EA/EIS evaluating solid and hazardous waste impacts and mitigation required if proposed activities would: result in improper collection, storage, transportation, or disposal of solid and/or hazardous waste per local, state, tribal, or federal requirements.
Factors to consider whether tiered EA/EIS is required: the facility has inadequate or insufficient waste collection, storage, transport, and disposal protocols; a firing range does not use adequate best management practices to manage spent lead shots.
Sample mitigation measures: improve waste management protocols at the training facility if not currently sufficient; implement adequate best management practices at the selected firing range to manage spent lead shots; select an alternative firing range that uses best management practices for spent lead shots.
Energy

Chapter 4. Impacts Analysis: **4.4 Training Impacts**

Training Activities
<p>Tiered EA/EIS evaluating energy impacts and mitigation required if proposed activities would: result in a significant change in energy consumption as compared to existing energy consumption or if energy requirements exceed the area's available energy supply as defined and established by local, municipal, county, or metropolitan region's energy codes and policies.</p>
<p>Factors to consider whether tiered EA/EIS is required: the area the training activities will be taking place has energy scarcity issues (such as regular occurrences of energy shortages and outages); training activities require a higher energy use than the facility being used typically requires.</p>
<p>Sample mitigation measures: use more energy-efficient equipment; reduce the amount of training activities that are energy intensive; avoid energy intensive activities during peak energy times in the area.</p>
Noise
<p>Tiered EA/EIS evaluating noise impacts and mitigation required if proposed activity would: lead to prolonged exposure of people or noise sensitive areas/facilities to noise that violated applicable local, state, or federal noise regulations.</p>
<p>Factors to consider whether tiered EA/EIS is required: the training facility has inadequate sound proofing measures for the activities that will be taking place; the training activities are of a long duration.</p>
<p>Sample mitigation measures: increase soundproofing measures at the training facility, decrease the duration of the training activities.</p>
Water Resources – Water Quality, Surface Water, Groundwater, Federally Protected Water Resources
<p>Tiered EA/EIS evaluating water resource impacts and mitigation required if proposed activities would: directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS; or violate TMDL targets; or result in significant changes in the availability of surface water or groundwater; or violate applicable state, tribal or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers).</p>
<p>Factors to consider whether tiered EA/EIS is required: in close proximity to nearby water bodies, aquifers, or federally protected water resources; inadequate or insufficient waste collection, storage, transport, and disposal protocols; a firing range does not use adequate best management practices to manage spent lead shots.</p>
<p>Sample mitigation measures: improve waste management protocols if not currently sufficient; implement adequate best management practices at the selected firing range to manage spent lead shots; select an alternative firing range that uses best management practices for spent lead shots.</p>
Water Resources – Floodplains
<p>Tiered EA/EIS evaluating floodplain impacts and mitigation required if proposed activity would: directly or indirectly alter a floodplain enough to present a substantial increased flood danger to the area or if the proposed activity is noncompliant with applicable state or local floodplain ordinances, or federal requirements (such as under E.O. 11988 and E.O. 13690).</p>
<p>Factors to consider whether tiered EA/EIS is required: the facility is located in a floodplain and is noncompliant with applicable state or local floodplain ordinances (including maintaining adequate flood insurance); activities have the potential to directly or indirectly impact a floodplain; adequate flood insurance is not maintained by the facility.</p>
<p>Sample mitigation measures: ensure facility compliance with all applicable floodplain ordinances.</p>
Water Resources – Wetlands
<p>Tiered EA/EIS evaluating wetland impacts and mitigation required if proposed activity would: directly or indirectly impact wetlands that triggers avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA.</p>
<p>Factors to consider whether tiered EA/EIS is required: an outdoor firing range is located on or in proximity to a wetland; bullet cleanup methods used by an outdoor firing range present the potential for substantial soil disturbance.</p>
<p>Sample mitigation measures: use an alternative outdoor firing range that is not on or in proximity to a wetland; use bullet cleanup methods that result in less disturbance.</p>

Chapter 4. Impacts Analysis: **4.4 Training Impacts**

Training Activities
Biological Resources – Vegetation
Tiered EA/EIS evaluating vegetation impacts and mitigation required if proposed activity would: lead to the introduction of invasive or exotic species or result in significant disturbance or permanent loss of natural vegetation communities.
Factors to consider whether tiered EA/EIS is required: bullet cleanup activities will result in ground disturbance that leads to vegetation removal.
Sample mitigation measures: use bullet cleanup methods that will minimize or eliminate vegetation removal.
Biological Resources – Wildlife and Habitat
Tiered EA/EIS evaluating wildlife and habitat impacts and mitigation required if proposed activity would: disrupt or disturb nearby wildlife populations or violates local, state, tribal or federal regulations which protect wildlife and their habitat.
Factors to consider whether tiered EA/EIS is required: wildlife and habitat is present in the activity area; the training facility has inadequate sound proofing measures for the activities that will be taking place.
Sample mitigation measures: avoid training activities during breeding or nesting seasons; increase soundproofing measures at the training facility.
Biological Resources- Federally Protected Species
Tiered EA/EIS evaluating federally species impacts and mitigation required if proposed activity would: result in the take of a migratory bird or T&E species or led to impacts on to the critical habitat of a T&E species.
Factors to consider whether tiered EA/EIS is required: federally protected species or their critical habitats are present in the activity area; the facility has inadequate sound proofing measures for the activities that will be taking place.
Sample mitigation measures: see mitigation measures described under Biological Resources – Wildlife and Habitat .
Cultural Resources- Archaeological Resources
Tiered EA/EIS evaluating cultural resource impacts and mitigation required if proposed activity would: directly or indirectly diminish a cultural resource’s integrity or historic or cultural significance or equate to an “adverse effect” determination under Section 106 of the NHPA.
Factors to consider whether tiered EA/EIS is required: ground disturbance will take place in an archaeologically sensitive or historic area; ground disturbance that exceeds the depth of previously known disturbance.
Sample mitigation measures: avoid archaeologically sensitive areas; decrease the degree of proposed ground disturbance; incorporate unintended discovery procedures in the event archaeological resources or human remains are encountered.
Workplace Safety and Health
Tiered EA/EIS evaluating workplace safety and health impacts and mitigation required if proposed activity would: violate OSHA’s General Duty Clause or other OSHA workplace safety and health standards and regulations applicable to the proposed activity; or pose an immediate threat to the health and safety of the workers or public.
Factors to consider whether tiered EA/EIS is required: the training facility has a history of violations of workplace safety and health conditions; the facility does not have sufficient workplace safety protocols in place with respect to the use of hazardous materials and firearms, or exposure to high noise levels.
Sample mitigation measures: supply and enforce the use of personal protective equipment (such as earmuffs, respirators or face shields); implementation of additional worker training or new training programs specific to training activities to be conducted; utilization of engineering controls, such as laboratory airflow and vacuum lines, sound-dampening equipment, etc.; laboratory or facility equipment upgrades; utilization of a laboratory, classroom, or approved workspace with task-specific set-ups and equipment.

Chapter 4. Impacts Analysis: 4.4 Training Impacts

Training Activities
Environmental Justice
Tiered EA/EIS evaluating environmental justice impacts and mitigation required if proposed activity would: lead to disproportionately high and adverse human health or environmental effects on environmental justicepopulations.
Factors to consider whether tiered EA/EIS is required: presence of environmental justice populations in the area; the presence of pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area; the proposed action presents the potential for impacts on the human environment.
Sample mitigation measures: consider alternative locations or training methods; implement mitigation measures specific to other resource areas to minimize negative impacts to environmental justice communities.

4.5 Body Decomposition Impacts

OJP provides funding to forensic anthropologists and research centers for body decomposition research activities. This research provides forensic professionals the opportunity to improve methodologies and tools to determine cause of death and provides training for future and current professionals in the forensic and anthropological fields. Body decomposition research activities consist of the treatment and observation of the decomposition of human remains. Body decomposition and associated observation and research may take up to two years.⁸⁷

Body decomposition research activities take place in indoor and outdoor laboratory environments and can include the use of hazardous materials and the production of hazardous and biomedical waste. Common treatments include bodies being clothed or unclothed, and buried or unburied, while their natural decomposition process is observed and documented over time.⁸⁸ During the decomposition process, samples from the donor bodies may be taken, which may include removing pieces of bone, skin or other DNA samples or collecting soil swabs. Outdoor body decomposition activities may also include installing cages around the buried or unburied bodies to protect the donor bodies from wildlife such as birds and small rodents.⁸⁹ Treatment activities that involve the use of fire or explosives in outdoor locations are outside of the scope of this PEA and would require a separate NEPA analysis (CATEX determination, EA, or EIS).

Body decomposition research activities may involve the construction of structures, such as sheds, to observe the body decomposition process indoors. These structures may be built to mimic proper building structures consisting of a layer of wood and drywall and a shingled roof.⁹⁰ Body decomposition research activities may also include the construction of new fencing at a facility. Any construction activities that are associated with body decomposition research activities must be considered under **Construction Impacts** analyzed in **Section 4.2**.

Body decomposition research activities occur at forensic anthropological centers (FACs) (also known as human decomposition facilities and taphonomic research facilities). Depending on the FAC, the number of donated bodies that are actively being used for body decomposition research activities at an individual FAC ranges from 5-70 bodies.⁹¹ FACs are located in different geographic zones in order to conduct research at different temperature ranges and precipitation amounts, and to research how flora and fauna affect body decomposition. These facilities also recreate cases encountered by law enforcement officials when necessary. At the time of this programmatic analysis, there are ten (10) centers throughout the world that specialize in human body decomposition, with eight (8) located in the U.S. that have the potential to receive OJP funding. This PEA assumes that all body decomposition research activities take place at one of the existing FACs located in the U.S. listed below. Any body decomposition research activities that are not carried out at one of the existing FACs listed below, are outside of the scope of this PEA and require a separate NEPA analysis (CATEX determination, EA, or EIS).

Chapter 4. Impacts Analysis: **4.5 Body Decomposition Impacts**

Table 19. U.S. Human Decomposition Facilities with Institutional Affiliation, Location, and Year Established⁹²

Name	Institutional Affiliation	Location	Established
<i>Forensic Anthropology Center</i>	University of Tennessee, Knoxville	Knoxville, TN	1981
<i>Forensic Osteology Research Station</i>	Western Carolina University	Cullowhee, NC	2005
<i>Forensic Anthropology Research Center</i>	Texas State University	San Marcos, TX	2008
<i>Applied Anatomical Research Center</i>	Sam Houston State University	Huntsville, TX	2010
<i>Complex for Forensic Anthropology Research</i>	Southern Illinois University	Carbondale, IL	2012
<i>Forensic Investigation Research Station</i>	Colorado Mesa University	Grand Junction, CO	2013
<i>Florida Forensic Institute for Research, Security, and Tactical Training</i>	University of South Florida	Tampa, FL	2017
<i>Forensic Research Outdoor Station</i>	Northern Michigan University	Marquette, MI	2018

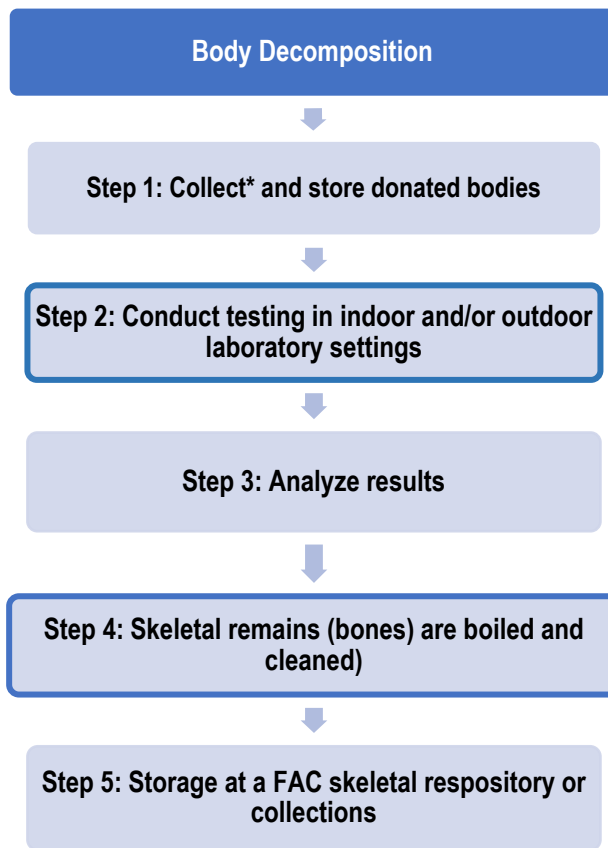
FACs follow universal collection, testing, and storage practices for body decomposition work, first established by the University of Tennessee, Knoxville’s FAC. **Figure 6** illustrates the steps of this standard body decomposition research process. Body decomposition research begins with the collection and storage of donated bodies (Step 1), followed by testing (Step 2) and analysis (Step 3). Skeletal remains (bones) are boiled and cleaned (Step 4) before being put into storage at the FAC (Step 5). Body decomposition testing activities (Step 2) and cleaning skeletal remains (Step 4) have the potential for impacts. Potential impacts from **Body Decomposition Research** are discussed in the resource area sections below (**Section 4.5.2**).

Incomplete Information

The university affiliation of each FAC location is known, as identified in **Table 19**. As part of the analysis for this PEA, outreach was conducted to each FAC to gather additional data on the actual facilities / locations where body decomposition research is conducted. This data request included asking for the address of the specific building(s) where body decomposition research activities are conducted in (which would allow for a determination of eligibility for the National Register of Historic Places). However, the majority of the FAC locations were unresponsive to this data request; therefore, this information is unknown at the time of this analysis.

Only one FAC location (Applied Anatomical Research Center in Huntsville Texas) provided the location of where both indoor and outdoor body decomposition research activities take place; there was no sensitive noise receptors identified in proximity to the indoor or outdoor locations associated with this facility. The presence or lack of noise sensitive receptors in proximity to FAC research locations needs to be confirmed prior to each applicable Proposed Action considered under **Section 4.5** under this PEA.

Figure 6. Typical OJP-Funded Body Decomposition Research Process



**Step 1 does not include exhumation activities. These activities are outside of the scope of this PEA. Body decomposition research activities that involve exhumation as part of the donor body collection process require a separate NEPA analysis (CATEX determination, EA, or EIS).*

Table 22 is provided at the end of this impacts section listing **Requirements for Further Analysis and Mitigation Measures**. If an individual activity being considered for funding or implementation triggers further analysis, the resource impacts may be mitigated by the mitigation measures listed in the table. If the activity under consideration is not covered by this PEA, a separate CATEX determination, EA, or EIS will be required.

4.5.1 Resource Areas Dismissed from Analysis

The following resource areas have been dismissed from further analysis. Body decomposition research activities take place at indoor and outdoor laboratories at existing FACs. Given this scope, body decomposition activities do not have the potential to impact these resource areas.

Land Use – Zoning

Body decomposition research activities take place at existing FACs that are already in use for and zoned for body decomposition research activities. Therefore, these activities would not conflict with local, state, and federal land use plans or local zoning regulations. There is no potential for zoning impacts.

Land Use – Transportation

Body decomposition research activities take place at existing FACs in sufficiently developed areas. Transportation activities associated with body decomposition activities are limited to the transportation of donor bodies and the daily commute of staff to and from the FAC. The transportation of donor bodies is infrequent, and since body decomposition research is part of the regular activities of a FAC facility these activities do not present potential to result in a large influx of additional staff. Body decomposition research activities do not present the potential to result in an increase traffic volume in the area; upset the normal flow of traffic; or require the expansion of existing public transit systems, existing roadways, or transportation facilities (parking structures or areas). Furthermore, body decomposition research activities do not present the potential for the repair of an existing major road or the establishment of a new major road. There is no potential for transportation impacts.

Geology, Topography, and Soils – Prime and Unique Farmland

Body decomposition research activities take place at existing FACs that are already in use for body decomposition research activities. This means that any outdoor activities would be carried out on land that is already in use for body decomposition research activities and would have no potential to convert existing farmland to any other use. There is no potential for prime or unique farmland impacts.

Cultural Resources – Historic Structures

Body decomposition research activities take place at indoor and outdoor laboratories at existing FACs. At the time of this analysis, the National Register of Historic Places eligibility of the FACs is not known (Incomplete Information). However, even under the circumstances where body decomposition research activities are carried out in a historic structure, the scope of activities for this work does not involve actions (such as making building alterations) that have the potential to directly or indirectly diminish the integrity or significance of historic structure(s) or equate to an “adverse effect” determination under Section 106 of the NHPA. There is no potential for historic structure impacts.

Aesthetics

Body decomposition research activities are limited to taking place at existing FACs. Although body decomposition research activities have the potential to occur outside, these activities do not result in the introduction of new features or circumstances that present the potential to degrade or alter the visual character or substantially lower the visual quality of the aesthetics of the surrounding area. There is no potential for aesthetic impacts.

4.5.2 Analysis of Resource Areas

The following sections consider the potential impacts of body decomposition research activities and the no action alternative on the resource areas that have not been dismissed from analysis.

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

Air Quality

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to air quality.

PROPOSED ACTION

See [Table 20](#) for the attainment status for the counties where each FAC is located (as of October 31, 2021). At the time of this analysis, all of the counties of the FAC locations are in attainment status for all criteria pollutants. If the location of body decomposition research activities is in attainment for all criteria pollutants, this eliminates the potential to result in significant air quality impacts as a result of contributing to an area's non-attainment status. However, there is still a potential for significant impacts based on the other significance criteria (generating emissions that exceed the de minimis threshold of NAAQS established under the CAA, or resulting in new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS).

Table 20. FAC attainment status as of October 31, 2021⁹³

Name	Location	County	Attainment Status
Forensic Anthropology Center	Knoxville, TN	Knox County	Attainment for all criteria pollutants
Forensic Osteology Research Station	Cullowhee, NC	Jackson County	Attainment for all criteria pollutants
Forensic Anthropology Research Center	San Marcos, TX	Hays County	Attainment for all criteria pollutants
Applied Anatomical Research Center	Huntsville, TX	Walker County	Attainment for all criteria pollutants
Complex for Forensic Anthropology Research	Carbondale, IL	Jackson & Williamson Counties	Attainment for all criteria pollutants
Forensic Investigation Research Station	Grand Junction, CO	Mesa County	Attainment for all criteria pollutants
Florida Forensic Institute for Research, Security, and Tactical Training	Tampa, FL	Hillsborough County	Attainment for all criteria pollutants
Forensic Research Outdoor Station	Marquette, MI	Marquette County	Attainment for all criteria pollutants

As outside controlled burns do not fall within the scope of this PEA, there are no outdoor body decomposition research activities that present the potential for air quality impacts.

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

Indoor body decomposition research activities present the potential to result in limited air pollution as a result of emissions that may result from powering the general operation of the building and the use of associated laboratory equipment needed to do indoor laboratory testing and/or storage of donor bodies. Body decomposition research activities take place at existing FACs that use industry standardized lab equipment (e.g., fume hoods) designed to filter, minimize, or not emit any pollutants.

Factors that influence significance include the amount of air pollution that results from the body decomposition activities, if all equipment that will be used has adequate permitting with respect to air quality (if applicable), the air pollution reduction measures already in place at the FAC, and if the FAC is in a non-attainment area. These factors are also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to generate emissions that exceed the de minimis threshold of NAAQS established under the CAA, contribute to an area's non-attainment status if located within one, or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS. Therefore, no significant air quality impacts are anticipated from body decomposition research activities.

Geology, Topography, and Soils

This section discusses geology, topography, and soils impacts. Please note, the "Prime and Unique Farmland" resource area has been dismissed from further analysis, as discussed in [Section 4.5.1](#).

Geology, Topography, and Soils

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to geology, topography, and soils.

PROPOSED ACTION

Indoor body decomposition research activities do not present the potential to result in erosion or loss of topsoil that reduce vegetation or soil function because these activities take place exclusively inside.

Outdoor body decomposition research activities may involve ground disturbing activities and therefore present the potential for geology, topography, and soils impacts. Ground disturbance for outdoor body decomposition research activities is generally limited to installing cages for the purposes of protecting the donor bodies and digging holes for the purposes of burying a body or to view/retrieve bodily remains that were previously buried. Therefore, these ground disturbing activities are generally small scale and after the body decomposition research is complete (up to two years) the disturbed area is returned to its original condition and/or is used for the next research action in a similar manner. If a specific treatment requires that the disturbed area not be returned to its original condition for observation, the potential for the erosion of topsoil is more likely. However, due to the small scale of these disturbances to bury singular bodies and/or install cages around bodies, these potential impacts are not anticipated to result in significant reduction in vegetation or soil function. Generally, the extent of ground disturbance would be

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

limited to the extent of disturbance that the outdoor laboratory area has previously experienced as a result of past body decomposition research activities (as the body decomposition research activities that are covered under this PEA are limited to those that take place at existing FACs). This decreases the potential significance of impacts as these activities generally are not resulting in the disturbance of a previously undisturbed area. Alternatively, repeat disturbance can contribute to further erosion impacts to an area that has already experienced erosion impacts in the past. However, due to the small scale of these disturbances to bury singular bodies and/or install cages around bodies, these potential impacts are not anticipated to result in significant reduction in vegetation or soil function.

The primary factor that influences significance is whether outdoor body decomposition activities present the potential for substantial soil disturbance. This factor is also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to lead to substantial erosion or loss of topsoil that significantly reduces vegetation or soil function. Therefore, no significant impacts to geology, topography, or soils are anticipated from body decomposition research activities.

Solid and Hazardous Waste

This section discusses solid and hazardous waste impacts.

Solid Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be solid waste impacts.

PROPOSED ACTION

Body decomposition research activities result in the generation of solid waste. Solid waste from body decomposition research activities could include plastic protection wrapping of lab materials and equipment, disposed PPE, and paper or plastic trash. Body decomposition research activities could result in regulated medical waste (e.g., blood and tissue). The solid waste produced at FAC facilities as result of body decomposition research activities is limited given that each facility is only researching/observing 5-70 bodies at any given time. However, body decomposition research activities take place at existing FACs with waste management protocols in place to ensure all operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly.⁹⁴

The primary factor that influences significance is whether a FAC has adequate waste collection, storage, transport, and disposal protocols and procedures in place to manage solid waste. This factor is also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to result in solid waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant solid waste impacts are anticipated from body decomposition research activities.

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

Hazardous Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be hazardous waste impacts.

PROPOSED ACTION

Body decomposition research activities could lead to the generation of hazardous waste. Hazardous waste that may be generated from body decomposition research activities may include toxic chemicals or reagents. However, body decomposition research activities take place at existing FACs with waste management protocols in place to ensure all operations are following the hazardous and non-hazardous waste regulations under RCRA and all other applicable federal, local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly.⁹⁵

The primary factor that influences significance is whether a FAC has adequate waste collection, storage, transport, and disposal protocols and procedures in place to manage hazardous waste. This factor is also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to result in hazardous waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant hazardous waste impacts are anticipated from body decomposition research activities.

Energy

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no energy impacts.

PROPOSED ACTION

Body decomposition research activities take place at indoor and outdoor laboratories at existing FACs with energy infrastructure, utilities, and industry standard indoor and outdoor lab equipment (such as, microscope, centrifuges, fume hoods, full size x-ray machines, body morgue refrigerators and freezers, Dremel drills, hand-held strikers, and hand-held x-ray systems) already in place and in use.⁹⁶ Therefore, FAC facilities have a baseline energy usage that is adequately supported by the facility's existing energy infrastructure, unless the facility is located in an area with existing energy scarcity issues (such as regular occurrences of energy shortages and outages). Alternatively, body decomposition research activities present the potential for energy impacts if the proposed work requires the introduction of new equipment that is not currently in use at the FAC, and the new equipment has a high-energy demand compared to the baseline energy demand of the current operations of the FAC.

Factors that influence significance include if the FAC is located in an area with energy scarcity issues (such as regular occurrences of energy shortages and outages) and whether the body decomposition research activities would require higher energy use than the existing FAC typically requires. These factors are also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to lead to a significant increase in energy consumption as compared to existing energy consumption or have energy requirements that exceed an area's available energy supply as defined and established by local, municipal, county, tribal, or metropolitan region's energy codes and policies. Therefore, no significant energy impacts are anticipated from body decomposition research activities.

Noise

Please note, this section is limited to the discussion of how noise produced from body decomposition research activities may impact the surrounding communities. Potential noise impacts that are specific to Workplace Health and Safety, Wildlife and Habitat, and Federally Protected Species are discussed in the corresponding sections for those resource areas.

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts from noise.

PROPOSED ACTION

Body decomposition research activities take place at indoor and outdoor laboratories at existing FACs using industry standard equipment and are not expected to generate noise that leads to prolonged exposure of people to noise that exceeds applicable local, state, or federal noise regulations. **Table 21** provides predicted sound levels associated with commonly used indoor lab equipment that may be used for body decomposition research activities. The lab equipment listed in **Table 21** would only be used indoors; any noise produced as part of indoor body decomposition research activities would be dampened by the existing structure, resulting in little to no noise spreading to the exterior of the building to expose people or noise sensitive areas/facilities.

Table 21. Predicted Noise Levels for Routine Lab Work Equipment⁹⁷

Equipment	Predicted Noise Level
Centrifuge	Up to 65 dBA
Fume hood	45-50 dBA

Equipment that may be used as part of outdoor body decomposition research activities includes Dremel drills, hand-held strikers, and saws (all for the purposes of gathering samples from the donor bodies). Furthermore, outdoor body decomposition research activities may also require the use of handheld x-ray systems, such as the NOMAD Pro.⁹⁸ These tools may result in noise levels above 65 dBA; however, outdoor use of these tools would not be for prolonged periods of time since this equipment is only used for gathering samples from donor bodies which is a task that is completed in a short period of time.

Factors that influence significance include whether required equipment produces noise above 65 dBA, if a FAC has sound proofing measures to adequately reduce the noise that will result from the proposed body decomposition research activities to minimize impacts to the outside environment and the presence of sensitive noise receptors in the area (residences, schools, hospitals, parks, etc.) (Incomplete Information). These factors are also detailed in **Table 22**

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to generate noise that leads to prolonged exposure of people, or noise sensitive areas/facilities that violates applicable local, state, or federal noise regulations. Therefore, no significant noise impacts are anticipated from body decomposition research activities.

Water Resources

This section discusses water quality, surface water, groundwater, federally protected water resources, floodplain, and wetland impacts.

Water Quality, Surface Water, Groundwater, and Federally Protected Water Resources

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no water resource impacts.

PROPOSED ACTION

Indoor body decomposition research activities take place at existing FACs with waste management protocols in place to ensure materials, waste, and residues are not released or emptied into any water resources or otherwise disposed of in a manner that has the potential to contaminate water resources.⁹⁹ Furthermore, indoor body decomposition research activities would not result in significant changes in groundwater discharge or recharge patterns, or the availability of surface or groundwater, as these activities are not anticipated to require a high input of water.

Outdoor body decomposition research activities present the potential for water quality impacts. Bodies are organic material with minerals and nutrients that leach out into the soil during the decomposition process. However, due to the small number of donated bodies used during testing and research lab work phase, soil infiltration is low and limited to the duration of the testing and research phase. Therefore, potential impacts to water quality and associated water resources as a result of body decomposition are negligible. Ground disturbance for outdoor body decomposition research activities is generally limited to installing cages for the purposes of protecting the donor bodies and digging holes for the purposes of burying a body or to view/retrieve bodily remains that were previously buried. Therefore, these ground disturbing activities are generally small scale and are not anticipated to result in substantial soil disturbance that may lead to erosion that may have the potential to impact water quality. Furthermore, outdoor body decomposition research activities would not result in significant changes in groundwater discharge or recharge patterns, or the availability of surface or groundwater, as these activities are not anticipated to require a high input of water.

Factors that influence significance include if a FAC has adequate waste collection, storage, transport, and disposal protocols and procedures in place, if a FAC is in close proximity to any water bodies or resources, and if the body decomposition research activities require a high input of water. These factors are also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

decomposition research activities are not expected to directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS; violate TMDL targets; violate applicable state, tribal or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers); or result in significant changes in groundwater discharge or recharge patterns, or the availability of surface or groundwater. Therefore, no significant water quality, surface water, groundwater, or federally protected water resource impacts are anticipated from indoor body decomposition research activities.

Floodplains

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to floodplains.

PROPOSED ACTION

Outdoor body decomposition activities may involve limited ground disturbance, but they do not present the potential to introduce new impervious surface to an area. Therefore, these activities do not present the potential to directly or indirectly alter a floodplain enough to present a substantial increased flood danger to the area or result in noncompliance with applicable state or local floodplain ordinances, or federal requirements. As noted previously, if body decomposition research activities require the construction of sheds or fences, these activities must be considered under the **Construction Impacts** analyzed in **Section 4.2**. Alternatively, outdoor body decomposition activities may include installing cages for the purposes of protecting the donor bodies from wildlife such as birds and small rodents. If the use of cage(s) was required for outdoor body decomposition activities located in a floodplain, it would be required that cage(s) would be installed adequately to ensure proper anchoring to withstand a flooding event (Incomplete Information).

It is expected that indoor body decomposition research activities take place at existing FACs located either outside a floodplain or in a facility that is compliant with all state and local floodplain ordinances and would not lead to direct or indirect impacts on floodplains or be noncompliant with applicable state/local floodplain ordinances. Indoor body decomposition research activities would present the potential for impacts if these qualifications were not met. If indoor body decomposition activities were taking place in a facility located in a floodplain, there would be no potential for floodplain soils to be disturbed as indoor body decomposition activities are limited to occurring indoors.

Factors that influence significance include if a FAC is located in a floodplain, if that facility is compliant with all state and local floodplain ordinances (including maintaining adequate flood insurance), and if outdoor body decomposition research activities require the use or installation of a cage to protect donor bodies from wildlife. These factors are also detailed in **Table 22** included at the end of **Section 4.5.3**. With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to directly or indirectly alter a floodplain enough to present a substantial increased flood danger to the area or be noncompliant with applicable state or local floodplain ordinances, or federal

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

requirements. Therefore, no significant floodplain impacts are anticipated from indoor body decomposition research activities.

Wetlands

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to wetlands.

PROPOSED ACTION

Indoor body decomposition research activities do not present the potential to trigger avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA because these activities take place exclusively inside.

Outdoor body decomposition research activities may involve ground disturbing activities and therefore present the potential for wetland impacts if the ground disturbing activities are proposed to take place on or in proximity to a wetland. Ground disturbance for outdoor body decomposition research activities is generally limited to installing cages for the purposes of protecting the donor bodies and digging holes for the purposes of burying a body or to view/retrieve bodily remains that were previously buried. Therefore, these ground disturbing activities are generally small scale, do not present the potential for the introduction of newly impervious surface, and do not present the potential to directly or indirectly impact wetlands. Furthermore, it is anticipated that body decomposition research activities would not be taking place within or in proximity to a wetland, as these activities take place at existing FACs that are already in use for body decomposition research activities (Incomplete Information).

The primary factor that influences significance is if ground disturbing activities are proposed on or in proximity to a wetland. This factor is also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures as needed, body decomposition research activities are not expected to lead to direct or indirect impacts that trigger avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA. Therefore, no significant wetlands impacts are anticipated from body decomposition research activities.

Biological Resources

Vegetation

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts vegetation.

PROPOSED ACTION

Indoor body decomposition research activities do not present the potential to result in impacts to vegetation because these activities take place exclusively inside.

Outdoor body decomposition research activities may involve ground disturbing activities and therefore present the potential for vegetation impacts. Ground disturbance for outdoor body

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

decomposition research activities is generally limited to installing cages for the purposes of protecting the donor bodies and digging holes for the purposes of burying a body or to view/retrieve bodily remains that were previously buried. Therefore, these ground disturbing activities, and any associated vegetation removal is generally small scale.

The primary factor that influences significance is whether outdoor body decomposition activities present the potential for substantial vegetation removal. This factor is also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to impact vegetative communities by degradation or from the introduction of exotic or invasive species. Therefore, no significant impacts to vegetation are anticipated from body decomposition research activities.

Wildlife and Habitat

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to wildlife or habitat.

PROPOSED ACTION

Potential wildlife impacts as a result of body decomposition activities includes impacts as a result of noise pollution. As discussed previously in the analysis of noise impacts, any noise produced as a result of indoor body decomposition research activities would be dampened by the existing structure, resulting in little to no noise spreading to the exterior of the building to expose potential wildlife, and the outdoor use of equipment such as Dremel drills, hand-held strikers, and hand-held x-ray machines would not be for prolonged periods of times, based on the nature of their functions.

Outdoor body decomposition research activities present the potential for wildlife or habitat impacts beyond potential noise impacts. In some cases, cages may be installed around the buried or unburied bodies to protect the donor bodies from wildlife such as birds and small rodents. The presence of these protective cages presents the potential for injury to wildlife; however, injury and subsequent impacts to wildlife are unlikely as the cages are meant to deter wildlife. Alternatively, some research activities will not implement measures to protect donor bodies from wildlife, as scavenging activities will be part of the body decomposition activity that will be observed in research. Human remains are not harmful to wildlife, therefore scavenging activities do not present the potential for impacts. Ground disturbance associated with body decomposition research activities also presents the potential to disturb underground wildlife habitat and other underground ecological functions. However, the ground disturbance associated with these activities is of limited scale and occurs in areas that have been previously disturbed for similar activities thereby decreasing the potential for impacts.

Factors that influence significance include whether required equipment produces noise above 65 dBA, if a FAC has sound proofing measures to adequately reduce the noise that will result from the proposed body decomposition research activities to minimize impacts to the outside environment, the proximity of sensitive wildlife and habitat to the FAC, and if there is

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

underground habitat or ecological functions present that will be disturbed as a result of ground disturbing activities. These factors are also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to result in the disruption or disturbance of nearby wildlife populations for a prolonged period of time, over a large area; impact a particularly sensitive or valuable wildlife or habitat resource with permanent implications; or violate local, state, tribal, or federal regulations which protect wildlife and their habitats. Therefore, no significant wildlife and habitat impacts are anticipated from body decomposition research activities.

Federally Protected Species

The Wildlife and Habitat “No Action” and “Proposed Action” analyses are also applicable to federally protected species.

In addition to the factors listed in the Wildlife and Habitat section above, the significance of impacts for federally protected species would vary at the site level depending on the presence of federally protected species in the area, and proximity to their critical habitats. These factors are also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to result in the take of a migratory bird or T&E species or lead to impacts on to the critical habitat of a T&E species. Therefore, no significant federally protected species impacts are anticipated from body decomposition research activities.

Cultural Resources

This section discusses archaeological resource impacts. Please note, the “Historic Structures” resource area has been dismissed from further analysis, as discussed in [Section 4.5.1](#).

Archaeological Resources

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be impacts to archaeological resources.

PROPOSED ACTION

Indoor body decomposition research activities do not present the potential to result in impacts to archaeological resources because these activities take place exclusively inside.

Outdoor body decomposition research activities may involve ground disturbing activities and therefore present the potential to impact archaeological resources. Ground disturbance for outdoor body decomposition research activities is generally limited to installing cages for the purposes of protecting the donor bodies and digging holes for the purposes of burying a body or to view/retrieve bodily remains that were previously buried. Therefore, these ground disturbing activities are generally small scale. Furthermore, it is expected that the extent of ground disturbance would be limited to the extent of disturbance that the outdoor laboratory area has previously experienced as a result of past body decomposition research activities (as the body decomposition research activities that are covered under this PEA are limited to those that take

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

place at existing FACs). The disturbance of a previously disturbed area to a similar extent reduces the potential of encountering or disturbing archaeological resources, as it is likely they would have been discovered as a result of previous disturbance.

Factors that influence significance include if ground disturbance will take place in an archaeologically sensitive or historic area and ground disturbance that exceeds the depth of previously known disturbance. These factors are also detailed in [Table 22](#) included at the end of [Section 4.5.3](#). With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to directly or indirectly diminish an archaeological resource's integrity or historic or cultural significance or equate to an "adverse effect" determination under Section 106 of the NHPA. Therefore, no significant archaeological resources impacts are anticipated from body decomposition research activities.

Workplace Safety and Health

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to workplace safety and health.

PROPOSED ACTION

As discussed throughout [Section 4.5.2](#), potential impacts that have the potential to affect the health and safety of the public, such as contamination, are not anticipated to be significant as a result of body decomposition research activities. Therefore, these activities do not have the potential to pose an immediate threat to the health and safety of the public.

Body decomposition research activities could lead to impacts on workplace safety and health. Potential impacts include:

- **Temporary or long-term exposure of workers to hazardous chemicals and substances:** Chemicals and reagents used at FACs have the potential to lead to acute toxicity or persistent/chronic health effects on humans and the environment if not properly used and stored.¹⁰⁰ Impacts could result from inhalation, ingestion, skin and/or eye contact, and skin absorption of hazardous chemicals/substances, exposures to airborne contaminants.
- **High noise levels from equipment:** FACs that use industry standardized lab equipment such as fume hoods, refrigerators, biosafety cabinets, centrifuges, and freezers which have the potential to elevate aggregate noise levels within a lab. Most manufacturers establish noise limits on lab equipment to ensure noise levels fall below OSHA standards (90 dBA is the 8-hour exposure limit).¹⁰¹ Equipment used as part of outdoor body decomposition research activities (such as Dremel drills, hand-held strikers, and hand-held x-ray machines) may also result in noise levels above 65 dBA.

Although body decomposition research activities present the potential for workplace safety and health impacts, OJP requires all applicants to carry out body decomposition research activities at laboratories that comply with all applicable OSHA regulations, including standards for laboratories and the General Duty Clause, which requires employers to provide a safe and hazard-free work environment. As part of a FAC's compliance with all applicable OSHA regulations, it is

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

anticipated that FACs would have existing protocols and relevant lab certifications in place to further support adequate workplace safety and health and limit potential impacts. Examples of potential workplace health and safety protocols include the use of fume hoods, ventilation systems, and required personal protective equipment when appropriate to minimize potential impacts from airborne contaminants and high-decibel noise. Compliance with these regulations minimize the potential for workplace safety and health impacts.

Factors that influence significance include if a FAC has a history of violations of workplace safety and health conditions, if the OSHA General Duty Clause or OSHA laboratory standards were violated, and if the facility has sufficient workplace safety protocols in place with respect to the use of hazardous materials and exposure to high noise levels. These factors are also detailed in **Table 22** included at the end of **Section 4.5.3**. With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to violate OSHA's General Duty Clause or other OSHA workplace safety and health standards and regulations or pose an immediate threat to the health and safety of the workers or public. Therefore, no significant workplace safety and health impacts are anticipated from body decomposition research activities.

Environmental Justice

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to environmental justice.

PROPOSED ACTION

If body decomposition research activities occur in an area with a high percentage of minority or low-income populations, these activities will have the potential to result in environmental justice impacts. If a project is identified as being in an area with the presence of environmental justice population(s) potential environmental justice impacts must be considered. Where environmental justice populations are present, the potential for otherwise non-significant impacts to resources (such as solid or hazardous waste) must be considered in light of their potential to be significant in environmental justice populations. However, as discussed throughout **Section 4.5**, body decomposition research activities take place at indoor and outdoor laboratories at existing FACs and these activities are not expected to result in significant impacts for other resource areas, and therefore are not likely to result in disproportionately high and adverse human health or environmental effects on environmental justice populations.

Factors that influence significance include the concentration of environmental justice populations in the area, the presence of pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area, and the significance of other impacts to the human environment as a result of the body decomposition research activities. These factors are also detailed in **Table 22** included at the end of **Section 4.5.3**. With the application of best management practices and mitigation measures when needed, body decomposition research activities are not expected to result in disproportionately high and adverse human health or environmental effects on environmental justice populations. Therefore,

Chapter 4. Impacts Analysis: 4.5 Body Decomposition Impacts

no significant environmental justice impacts are anticipated from body decomposition research activities.

4.5.3 Requirements for Further Analysis and Mitigation Measures

As discussed throughout [Section 4.5.2](#), significant impacts are not expected for most OJP-funded body decomposition research activities. However, OJP must consider each proposed activity individually, based on the scope of the activity in its unique location, including the surrounding resources and populations that could potentially be impacted. The following table should be reviewed for each proposed body decomposition research activity to make an individual determination as to whether further NEPA analysis is required for that specific activity.

The table below explains when a tiered analysis (EA or EIS) is required to evaluate potentially significant impacts based on the significance criteria defined in this PEA. The table also lists factors to help OJP with this determination. The tiered analysis should be limited to resource areas that have not already been sufficiently covered by this PEA and may have significant impacts.

- A **tiered EA** is required if a proposed activity may have significant impacts, or if there is incomplete information to determine if impacts may be significant.
- A **tiered EIS** is required if the proposed activity has significant impacts, and those significant impacts will not be mitigated below the significance level.

If a tiered EA identifies significant impacts, OJP must implement mitigation measures to reduce the significance of those impacts below the significance criteria threshold and list these measures in the finding of no significant impact (FONSI), if determined, for the tiered EA. **If a tiered EA identifies significant impacts and mitigation measures are not identified to mitigate impacts below the level of significance, then OJP must prepare an EIS.** See the “sample mitigation measures” in this table for recommended measures to reduce the significance of impacts. Note that other mitigation measures may be used instead of the listed mitigation measures if they reduce impacts below the level of significance and are approved by OJP.

Cumulative Impacts

When evaluating whether a tiered NEPA analysis is required, OJP must determine if a proposed activity has the potential for significant cumulative impacts in the context of past, ongoing, and reasonably foreseeable future actions within or near the area of potential effect for the proposed action. OJP must consider federal and non-federal actions, regardless of the funding source, when considering potential cumulative impacts. Cumulative impacts must be evaluated for each proposed activity.

A tiered NEPA analysis evaluating potentially significant cumulative impacts is required if the proposed activity, in context of other past, ongoing, or future activities, would exceed the capacity of existing infrastructure (energy supply, water supply, etc.) or contribute to resource issues in the area. Factors to consider whether a tiered NEPA analysis is required to evaluate cumulative impacts include:

- Other actions (past, present, and reasonably foreseeable future actions) within or near the area of potential effect that may have an environmental impact.
- Resource issues (e.g., flooding) and sensitive environmental resources (e.g., endangered species, wetlands) in or near the area of potential effect where the addition of the proposed activity in the context of past, present, and reasonably foreseeable future actions could increase the potential for significant cumulative impacts.

Table 22. Body Decomposition Research Activities Requirements for a Tiered EA/EIS and Sample Mitigation Measures

Body Decomposition Research Activities	
Air Quality	
Tiered EA/EIS evaluating air quality and mitigation required if proposed activity would: generate emissions exceeding de minimis threshold of NAAQS or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS.	
Factors to consider whether tiered EA/EIS is required: the activities result in high emission levels; the FAC does not have adequate air pollution reduction measures in place; equipment does not have adequate permitting with respect to air quality; the FAC is in a non-attainment area.	
Sample mitigation measures: reduce the number of activities that result in air pollution; implement new air pollution reduction measures at the FAC; obtain adequate air quality permitting for equipment.	
Geology, Topography, and Soils	
Tiered EA/EIS evaluating geology, topography, and soils impacts and mitigation required if proposed activity would: result in substantial erosion or loss of topsoil that significantly reduces vegetation or soil function.	
Factors to consider whether tiered EA/EIS is required: outdoor body decomposition research activities present the potential for substantial soil disturbance.	
Sample mitigation measures: alter research activities to result in less soil disturbance; implement measures to minimize the potential for erosion.	
Solid and Hazardous Waste	
Tiered EA evaluating solid and hazardous waste impacts and mitigation required if proposed activities would: result in improper collection, storage, transportation, or disposal of solid and/or hazardous waste per local, state, tribal, or federal requirements.	
Factors to consider whether tiered EA/EIS is required: FAC has inadequate or insufficient waste collection, storage, transport, and disposal protocols.	
Sample mitigation measures: improve waste management protocols if not currently sufficient; implement spill plans if not currently in place.	
Energy	
Tiered EA/EIS evaluating energy impacts and mitigation required if proposed activities would: result in a significant change in energy consumption as compared to existing energy consumption or if energy requirements exceed the area's available energy supply as defined and established by local, municipal, county, or metropolitan region's energy codes and policies.	
Factors to consider whether tiered EA/EIS is required: the area the body decomposition research activities will be taking place has energy scarcity issues (such as regular occurrences of energy shortages and outages); the equipment being used has higher energy usage requirements than the existing FAC typically accommodates.	
Sample mitigation measures: use more energy-efficient equipment; reduce the number of activities that are energy intensive; avoid operating during peak energy times in the area.	
Noise	
Tiered EA/EIS evaluating noise impacts and mitigation required if proposed activity would: lead to prolonged exposure of people, or noise sensitive areas/facilities to noise that violated applicable local, state, or federal noise regulations.	
Factors to consider whether tiered EA/EIS is required: the FAC has inadequate sound proofing measures for the activities that will be taking place; outdoor activities require the use of equipment with noise levels above 65 dBA; there are sensitive noise receptors in the area (residences, schools, hospitals, parks, etc.).	
Sample mitigation measures: increase sound proofing measures at the lab facility; avoid noise polluting activities at certain times of day or year (depending on the surrounding sensitive noise receptors).	
Water Resources – Water Quality, Surface Water, Groundwater, Federally Protected Water Resources	
Tiered EA/EIS evaluating water resource impacts and mitigation required if proposed activities would: directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal	

Chapter 4. Impacts Analysis: **4.5 Body Decomposition Impacts**

Body Decomposition Research Activities
WQS; violate TMDL targets; or result in significant changes in the availability of surface water or groundwater; or violate applicable state, tribal or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers).
Factors to consider whether tiered EA/EIS is required: FAC is in close proximity to nearby water bodies, aquifers, or federally protected water resources; body decomposition activities require a high input of water; inadequate or insufficient waste collection, storage, transport, and disposal protocols.
Sample mitigation measures: improve waste management protocols if not currently sufficient; reduce the number of activities that require a high input of water.
Water Resources – Floodplains
Tiered EA/EIS evaluating floodplain impacts and mitigation required if proposed activity would: directly or indirectly alter a floodplain enough to present a substantial increased flood danger to the area or if the proposed activity is noncompliant with applicable state or local floodplain ordinances, or federal requirements (such as under E.O. 11988 and E.O. 13690).
Factors to consider whether tiered EA/EIS is required: the FAC is located in a floodplain and is noncompliant with applicable state or local floodplain ordinances (including maintaining adequate flood insurance); the body decomposition research activities require the installation of a cage in a floodplain.
Sample mitigation measures: ensure facility compliance with all applicable floodplain ordinances; installation of a cage is done adequately to ensure proposer anchoring to withstand a flooding event.
Water Resources – Wetlands
Tiered EA/EIS evaluating wetland impacts and mitigation required if proposed activity would: directly or indirectly impact wetlands that triggers avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA.
Factors to consider whether tiered EA/EIS is required: ground disturbance is proposed on or in proximity to a wetland.
Sample mitigation measures: select an alternative location for ground disturbing activities; avoidance, minimization, or compensatory mitigation; replant vegetation at the conclusion of the activity.
Biological Resources – Vegetation
Tiered EA/EIS evaluating vegetation impacts and mitigation required if proposed activity would: lead to the introduction of invasive or exotic species or result in significant disturbance or permanent loss of natural vegetation communities.
Factors to consider whether tiered EA/EIS is required: a large amount of vegetation will be removed or disturbed.
Sample mitigation measures: maintain topsoil to the extent possible; replant native vegetation.
Biological Resources – Wildlife and Habitat
Tiered EA/EIS evaluating wildlife and habitat impacts and mitigation required if proposed activity would: disrupt or disturb nearby wildlife populations or violates local, state, tribal, or federal regulations which protect wildlife and their habitat.
Factors to consider whether tiered EA/EIS is required: wildlife and habitat are present in the activity area; the FAC has inadequate sound proofing measures for the activities that will be taking place; outdoor activities require the use of equipment with noise levels above 65 dBA; there is underground habitat or ecological functions present that will be disturbed as a result of ground disturbing activities.
Sample mitigation measures: decrease the frequency of activities that result in significant noise pollution or avoid performing those activities during certain times of year (ex. Nesting or breeding season); increase soundproofing proofing measures at the FAC; minimize the extent of ground disturbance; select an alternative location where underground habitat and ecological functions are not present.
Biological Resources- Federally Protected Species
Tiered EA/EIS evaluating federally protected species impacts and mitigation required if proposed activity would: result in the take of a migratory bird or T&E species or led to impacts on to the critical habitat of a T&E species.

Chapter 4. Impacts Analysis: **4.5 Body Decomposition Impacts**

Body Decomposition Research Activities
<p>Factors to consider whether tiered EA/EIS is required: federally protected species or their critical habitat are present in the activity area; the FAC has inadequate sound proofing measures for the activities that will be taking place.</p>
<p>Sample mitigation measures: see mitigation measures described under Biological Resources – Wildlife and Habitat.</p>
Cultural Resources- Archaeological Resources
<p>Tiered EA/EIS evaluating cultural resource impacts and mitigation required if proposed activity would: directly or indirectly diminish a cultural resource’s integrity or historic or cultural significance or equate to an “adverse effect” determination under Section 106 of the NHPA.</p>
<p>Factors to consider whether tiered EA/EIS is required: ground disturbance will take place in an archaeologically sensitive or historic area; ground disturbance that exceeds the depth of previously known disturbance.</p>
<p>Sample mitigation measures: avoid archaeologically sensitive areas; decrease the degree of proposed ground disturbance; incorporate unintended discovery procedures into project design to mitigate impacts in the event archaeological resources or human remains are encountered.</p>
Workplace Safety and Health
<p>Tiered EA/EIS evaluating workplace safety and health impacts and mitigation required if proposed activity would: violate OSHA’s General Duty Clause or other OSHA workplace safety and health standards and regulations applicable to the proposed activity; or pose an immediate threat to the health and safety of the workers or public.</p>
<p>Factors to consider whether tiered EA/EIS is required: the FAC has a history of violations of workplace safety and health conditions; the FAC does not have sufficient workplace safety protocols in place with respect to the use of hazardous materials or exposure to high noise levels.</p>
<p>Sample mitigation measures: supply and enforce the use of personal protective equipment (such as earmuffs, respirators, or face shields); implementation of additional worker training or new training programs specific to the body decomposition research to be conducted; utilization of engineering controls, such as laboratory airflow and vacuum lines, sound-dampening equipment, etc.; laboratory or facility equipment upgrades.</p>
Environmental Justice
<p>Tiered EA/EIS evaluating environmental justice impacts and mitigation required if proposed activity would: lead to disproportionately high and adverse human health or environmental effects on environmental justice populations.</p>
<p>Factors to consider whether tiered EA/EIS is required: presence of environmental justice populations in the area the presence of pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area: the proposed action presents the potential for impacts on the human environment.</p>
<p>Sample mitigation measures: consider alternative locations; implement mitigation measures specific to other resource areas to minimize negative impacts to environmental justice communities.</p>

4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts

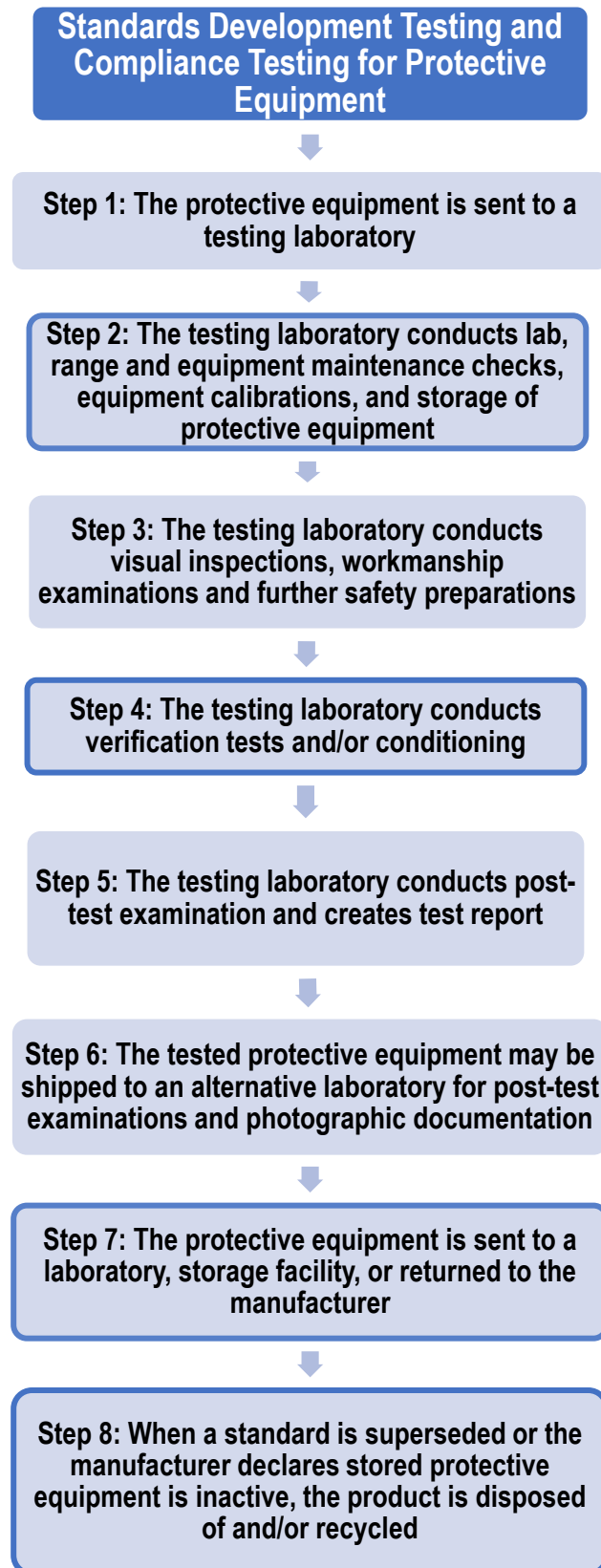
OJP funds both standards development and compliance testing activities. These activities are part of a broader group of activities (including research, development, testing, and evaluation efforts) supported by OJP to improve the safety, effectiveness, efficiency, and efficacy of technologies, products, prototypes, and practices used by criminal justice agencies.¹⁰²

- **Standards Development:** Standards development is the process of developing and updating standards. The process establishes minimum performance standards for technologies, products and practices used by criminal justice agencies.¹⁰³ There are two components of the standards development process:
 - **Writing and Developing the Standard:** This is a process that consists of engaging with stakeholders, gathering needs and requirements, analyzing test methods, drafting a standard and soliciting public input, and publication. As an administrative process, this part of the standards development process does not present the potential for impacts and is not considered or analyzed further in this PEA.
 - **Standards Development Testing:** This is testing that would be completed to support the test method development process for a standard that is being developed or revised. This testing is done in support of developing or updating a standard and is typically completed prior to the standard being finalized or updated. These tests may also be conducted after publication if there are questions or issues related to its implementation or reasonability.
- **Compliance Testing:** Compliance testing is the process of testing products to an NIJ standard that have been submitted for inclusion on the NIJ Compliant Products List.¹⁰⁴ Compliance testing activities may be conducted in indoor or outdoor settings.

Although the reason for performing standards development testing and compliance testing differs (as described above), the process for these testing activities is the same. Therefore, these two categories of testing activities will be referred to as “**Standards Development Testing and Compliance Testing**” from this point forward. The process for standards development and compliance testing is outlined in **Figure 7** below. These activities often use firearms in indoor and outdoor firing ranges, or similar contained lab settings. The analysis in **Section 4.6** is limited to the analysis of standards development testing and compliance testing for the following protective equipment: soft body armor, hard body armor, stab armor, ballistic materials, and firearms. Standards development testing and compliance testing activities for other products would require a separate NEPA analysis (CATEX determination, EA, or EIS).

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

Figure 7. Typical OJP-Funded Standards Development Testing and Compliance Testing Process for Protective Equipment



Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

As outlined in [Figure 7](#), each instance of standards development testing or compliance testing considers the process of an individual protective equipment product being sent to a lab for testing. The number of individual protective equipment products a specific lab may be sent to test over the course of a year differs between labs and depends on how many types of protective equipment products (ex. soft body armor, hard body armor, stab armor, ballistic materials, and firearms) that lab is accredited to test. A single lab will typically test less than 35 individual protective equipment products in a year.

The standards development testing and compliance testing process (outlined in [Figure 7](#)) presents the potential for impacts. Laboratory maintenance and calibration checks (Step 2) and the testing of protective equipment (Step 4), as well as the storage (Step 7) and disposal of protective equipment (Step 8), have the potential for impacts. Depending on the protective equipment being tested, Step 4 could include activities such as firing bullets, conducting drop tests, conditioning (conditioning, environmental conditioning, or mechanical conditioning of armor includes machinery that applies exposure to elements of water, temperature, and long-term use as part of the conditions set by the relevant standard), or using knives and spikes to conduct stab tests. The specific testing activities adhere to the standards for the relevant protective equipment. The standards also set requirements for testing parameters such as how many rounds of bullets must be fired for the test to be completed. Standards development testing and compliance testing for the protective equipment covered under this PEA do not require the use of hazardous chemicals.¹⁰⁵

The standards development testing and compliance testing process is a short-term process. Steps 1 – 7 typically occur in a time frame of 90-120 days. Potential impacts from standards development testing and compliance testing activities are discussed in the resource area sections below ([Section 4.6.2](#)). These activities have been analyzed in the EA completed for the Research Triangle Institute (RTI) Criminal Justice Testing and Evaluation Consortium (CJTEC). The programmatic analysis of standards development testing and compliance testing activities included in this section considers and expands on the analysis completed in the RTI CJTEC EA which is incorporated by reference in this PEA.

[Table 23](#) is provided at the end of this impacts section listing [Requirements for Further Analysis and Mitigation Measures](#). If an individual activity being considered for funding or implementation triggers further analysis, the resource impacts may be mitigated by the mitigation measures listed in the table. If the activity under consideration is not covered by this PEA, a separate CATEX determination, EA, or EIS will be required.

4.6.1 Resource Areas Dismissed from Analysis

The following resource areas have been dismissed from further analysis. Standard development and compliance testing activities take place in indoor and outdoor laboratories and firing ranges at existing facilities that are already undertaking similar work and activities. Potential ground disturbance associated with standard development and compliance testing is limited to bullet clean-up activities associated with outdoor firing ranges. Given this scope, standards development testing and compliance testing activities do not have the potential to impact these resources areas.

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

Land Use – Transportation

Standards development testing and compliance testing activities take place at existing laboratory facilities with existing transportation infrastructure to support facility operations. Transportation activities associated with standards development testing and compliance testing activities are limited to the transportation of protective equipment to and from the testing laboratories and the daily commute of staff to and from the testing laboratories. The transportation of protective equipment is infrequent and standards development testing and compliance testing activities do not result in a large influx of additional staff that would result in an increase traffic volume in the area. There is no potential for transportation impacts.¹⁰⁶

Geology, Topography, and Soils - Prime and Unique Farmland

Standards development testing and compliance testing activities take place at existing indoor and outdoor laboratory settings and firing ranges that are already undertaking similar work and activities. This means that any outdoor activities would be carried out on land that is already in use for similar activities and would have no potential to convert existing farmland to any other use. There is no potential for prime or unique farmland impacts.

Cultural Resources - Historic Structures

Standards development testing and compliance testing activities could potentially take place in historic structures. Even under the circumstances where standards development testing and compliance testing activities are carried out in a historic structure, the scope of activities for this work does not involve actions (such as building alterations) that have the potential to directly or indirectly diminish the integrity or significance of historic structure(s) or equate to an “adverse effect” determination under Section 106 of the NHPA. There is no potential for historic structure impacts.

Aesthetics

Standards development testing and compliance testing activities take place at existing indoor and outdoor laboratory settings and firing ranges that are already undertaking similar work and activities. Although these activities have the potential to occur outside, they do not result in the introduction of new features or circumstances that present the potential to degrade or alter the visual character or substantially lower the visual quality of the aesthetics of the surrounding area. There is no potential for aesthetic impacts.

4.6.2 Analysis of Resource Areas

The following sections consider the potential impacts of standards development testing and compliance testing activities and the no action alternative on the resource areas that have not been dismissed from analysis.

Land Use

This section discusses zoning impacts. Please note, the “Transportation” resource area has been dismissed from further analysis, as discussed in [Section 4.6.1](#).

Chapter 4. Impacts Analysis: 4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts

Zoning

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to zoning.

PROPOSED ACTION

Due to the process associated with selecting labs to participate in standards development testing and compliance testing activities, it is expected that these activities are carried out at existing lab facilities that regularly undertake similar activities and are already zoned accordingly.

The primary factor that influences significance is if the facility location is properly zoned for the proposed standards development testing and compliance testing activities. This factor is also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to conflict with any local, state, or federal land use plans or local zoning regulations. Therefore, no significant zoning impacts are anticipated from standards development testing and compliance testing activities.

Air Quality

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to air quality.

PROPOSED ACTION

Standards development testing and compliance testing activities may have the potential to result in limited air pollution as a result of the operations of the facility where indoor testing is taking place (ex. pollution that may result from powering or heating the building) or from air emissions that may result from the outdoor use of firearms. However, because each instance of standards development testing or compliance testing is limited to testing a singular protective equipment product, it is anticipated that any air pollution that would directly result from these activities would be of negligible impact.

Factors that influence significance include the amount of air pollution that results from the standards development testing and compliance testing activities, the air pollution reduction measures already in place at the facility, and if the laboratory is in a non-attainment area. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to generate emissions that exceed the de minimis threshold of NAAQS established under the CAA, contribute to an area's non-attainment status if located within one, or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS. Therefore, no significant air quality impacts are anticipated from standards development testing and compliance testing activities.

Geology, Topography, and Soils

This section discusses geology, topography, and soils impacts. Please note, the “Prime and Unique Farmland” resource area has been dismissed from further analysis, as discussed in [Section 4.6.1](#).

Geology, Topography, and Soils

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to geology, topography, and soils.

PROPOSED ACTION

Standards development testing and compliance testing activities that take place in indoor laboratories and firing ranges do not present the potential for geology, topography, and soil impacts. For activities that take place at outdoor firing ranges, as part of best management practices, shooting ranges routinely carry out bullet clean-up activities that have the potential to result in minor soil disturbance. The soil disturbance is generally limited to the surface layer of soil. Examples of such activities include raking and/or sifting bullet fragments from the soil or the use of a vacuum system for the same purpose.¹⁰⁷ Furthermore, these activities take place at established outdoor firing ranges where it is anticipated that similar bullet cleanup activities and associated ground disturbance has taken place regularly in the past. This past use decreases the potential significance of impacts as these activities are not resulting in the disturbance of a previously undisturbed area. Alternatively, repeat disturbance can contribute to further erosion impacts to an area that has already experienced erosion impacts in the past. However, because the ground disturbance will generally be limited to the surface layer of soil, these potential impacts are not anticipated to result in significant reduction in vegetation or soil function.

The primary factor that influences significance is whether bullet cleanup methods used by an outdoor firing range present the potential for substantial soil disturbance. This factor is also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to result in substantial erosion, loss, or compaction of topsoil that significantly reduces vegetation or soil function. Therefore, no significant impacts to geology, topography, or soils are anticipated from standards development testing and compliance testing activities.

Solid and Hazardous Waste

This section discusses solid and hazardous waste impacts.

Solid Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no solid waste impacts.

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

PROPOSED ACTION

Standards development testing and compliance testing activities result in the generation of solid waste. Solid waste from standards development testing and compliance testing activities may include non-paper, plastic and packaging wrapping, and miscellaneous office trash and paper.¹⁰⁸ Standards development testing and compliance testing activities that involve the use of firearms could produce spent shots including lead, copper, and brass bullets. Lead bullets, if recycled, are considered a scrap metal pursuant to 40 C.F.R. 261.6(a)(3)(ii) and are therefore exempt from RCRA regulation (the potential for hazardous waste impacts if lead bullets are not managed properly are discussed in the Hazardous Waste section below).¹⁰⁹ Copper and brass bullets do not present the potential to be handled as hazardous waste. As outlined in [Figure 7](#), the protective equipment that is tested is initially stored at a storage facility and remain in storage until the relevant standard is superseded or the manufacturer declares the protective equipment inactive. At this point, the tested protective equipment enters the waste stream and would be returned to the manufacturer or sent to another laboratory or facility to be properly recycled and/or disposed of.¹¹⁰ OJP requires all testing laboratories and storage facilities undertaking standards development testing and compliance testing activities to use waste contracting companies or in-house/custodian staff whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly.

Factors that influence significance include whether a facility has adequate waste collection, storage, transport, and disposal protocols and procedures in place to manage solid waste. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to result in solid waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant solid waste impacts are anticipated from standards development testing and compliance testing activities.

Hazardous Waste

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no hazardous waste impacts.

PROPOSED ACTION

Standards development testing and compliance testing activities could lead to the generation of the following hazardous waste:

- **Tested protective equipment (or parts of tested protective equipment):** Tested protective equipment (or parts of tested protective equipment) that is first kept in storage but later enters the waste stream may qualify as hazardous waste. As discussed above, the tested protective equipment that enters the waste stream is transported to either the manufacturer or another laboratory or facility to be properly recycled and/or disposed of.¹¹¹ OJP requires all testing laboratories and storage facilities undertaking standards

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

development testing and compliance testing activities to use waste contracting companies or in-house/custodian staff whose operations are compliant with the hazardous and non-hazardous waste regulations under RCRA and applicable local, state, and tribal requirements to ensure all waste is stored, transported, and disposed of properly.

- **Lead bullets:** Standards development testing and compliance testing activities that take place at indoor and outdoor firing ranges may use lead bullets. As noted above, lead bullets, if recycled, are considered a scrap metal pursuant to 40 C.F.R. 261.6(a)(3)(ii) and are therefore exempt from RCRA regulation. However, spent lead shots are a solid waste that have the potential to pose an imminent or substantial endangerment as a result of lead migration, if not properly managed.¹¹² Lead migration is when rainwater causes lead in surface soil to migrate into ground water and eventually into water systems. Even at low exposure levels, lead can be harmful to human health.¹¹³ This potential adverse impact to water resources and human health is minimized when best management practices are used for bullet and shot containment, preventing lead migration, and lead removal and recycling. It is anticipated that the firing ranges used for training activities would use adequate best management practices that allow for lead bullets to be treated as scrap metal (solid, nonhazardous waste) and to adequately address long-term lead contamination and relevant human health concerns.

Factors that influence significance include whether a facility has adequate waste collection, storage, transport, and disposal protocols and procedures in place to manage hazardous waste, and if a firing range uses adequate best management practices for management of spent lead shots. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to result in hazardous waste that is not properly collected, stored, transported, or disposed of per local, state, tribal, or federal requirements. Therefore, no significant hazardous waste impacts are anticipated from standards development testing and compliance testing activities.

Energy

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no energy impacts.

PROPOSED ACTION

Standards development testing and compliance testing activities take place at existing facilities that are already undertaking similar work and activities. Generally, standards development testing and compliance testing activities would use equipment that is already available, in place and in use at the testing facilities, and would not result in higher energy usage than what the facility typically experiences and is able to support.¹¹⁴ However, if the facility is located in an area with existing energy scarcity issues (such as regular occurrences of energy shortages and outages), activities can present the potential for energy impacts if the proposed activities require the introduction and use of new equipment that is not currently in use at the facility and the new

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

equipment has a high-energy demand compared to the baseline energy demand of the current operations of the facility.

Factors that influence significance include if the area where standards development testing and compliance testing activities will be taking place has energy scarcity issues (such as regular occurrences of energy shortages and outages), and if activities would require higher energy use than the existing facility typically requires. These factors are also detailed in **Table 23** included at the end of **Section 4.6.3**. With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to lead to a significant increase in energy consumption as compared to existing energy consumption or have energy requirements that exceed an area's available energy supply as defined and established by local, municipal, county, tribal, or metropolitan region's energy codes and policies. Therefore, no significant energy impacts are anticipated from standards development testing and compliance testing activities.

Noise

Please note, this section is limited to the discussion of how noise produced from standards development testing and compliance testing activities may impact community noise levels. Potential noise impacts that are specific to Workplace Health and Safety, Wildlife and Habitat, and Federally Protected Species are discussed in the corresponding sections for those resource areas.

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts from noise.

PROPOSED ACTION

Indoor and outdoor standards development testing and compliance testing activities that involves the use of firearms present the potential for noise impacts. Activities that involve the use of firearms are limited to taking place at existing permitted indoor and outdoor ranges or similar facilities. Since these facilities are already in operation, it is anticipated that adequate soundproofing measures would already be in place for indoor facilities and that outdoor facilities would use best practices to minimize noise impacts to the surrounding area.¹¹⁵

Factors that influence significance include whether the equipment being used produces noise above 65 dBA and if a facility has sound proofing measures to adequately reduce the noise that will result from standards development testing and compliance testing activities to minimize impacts to the outside environment. These factors are also detailed in **Table 23** included at the end of **Section 4.6.3**. With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to generate noise that leads to prolonged exposure of people, or noise sensitive areas/facilities that violates applicable local, state, or federal noise regulations. Therefore, no significant noise impacts are anticipated from standards development testing and compliance testing activities.

Chapter 4. Impacts Analysis: 4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts

Water Resources

This section discusses water quality, surface water, groundwater, federally protected water resources, floodplains, and wetlands impacts.

Water Quality, Surface Water, Groundwater, and Federally Protected Water Resources

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no water resource impacts.

PROPOSED ACTION

Standards development testing and compliance testing activities take place at existing facilities with waste management protocols in place to ensure materials, waste, and residues are not released or emptied into any water resources or otherwise disposed of in a manner that has the potential to contaminate water resources. Standards development testing and compliance testing activities would not directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS; or violate TMDL targets; or violate applicable state, tribal, or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers). Additionally, standards development testing and compliance testing activities would not result in significant changes in groundwater discharge or recharge patterns, or the availability of surface or groundwater, as these activities do not require a high input of water.

As discussed previously, spent lead shots are a solid waste that have the potential to pose an imminent or substantial endangerment as a result of lead migration, if not properly managed.¹¹⁶ Lead migration is when rainwater causes lead in surface soil to migrate into ground water and eventually into water system. This potential adverse impact to water resources is minimized when best management practices are used for bullet and shot containment, preventing lead migration, and lead removal and recycling. It is anticipated that the firing ranges used for standards development testing and compliance testing activities would use adequate best management practices that allow for lead bullets to be treated as scrap metal (solid, nonhazardous waste) and to adequately address long-term lead contamination concerns.

Factors that influence significance include if a facility has adequate waste collection, storage, transport, and disposal protocols and procedures in place, if a firing range uses adequate best management practices for management of spent lead shots, if a facility is in close proximity to any water bodies or resources, if the activities require a high input of water. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS; violate TMDL targets violate applicable state, tribal, or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers); result in significant changes in groundwater discharge or recharge patterns, or the availability of surface or groundwater.

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

Therefore, no significant water quality, surface water, groundwater, or federally protected water resource impacts are anticipated from standards development testing and compliance testing activities.

Floodplains

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to floodplains.

PROPOSED ACTION

It is expected that standards development testing and compliance testing activities take place at existing facilities that are located outside of a floodplain or at existing facilities that are compliant with all state and local floodplain ordinances (including maintaining adequate flood insurance). Outdoor standards development testing and compliance testing activities, if they were to occur within a floodplain, do not involve construction, the establishment of new impervious surface, or other activities that have the potential to impact a floodplain directly or indirectly. Standards development testing and compliance testing activities would present the potential for impacts if these qualifications were not met.

Factors that influence significance include if a facility is located in a floodplain, if standards development testing and compliance testing involves any activities with the potential to directly or indirectly impact a floodplain, and if the facility is compliant with all state and local floodplain ordinances, including if the facility maintains adequate flood insurance to properly cover the potential loss of property (including the protective equipment undergoing standards development testing and compliance testing that is being stored at the facility) that may result from a flooding event. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to result in the alteration a floodplain enough to present a substantial increased flood danger to the area or result in noncompliance with applicable state or local floodplain ordinances, or federal requirements. Therefore, no significant floodplain impacts are anticipated from standards development testing and compliance testing activities.

Wetlands

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to wetlands.

PROPOSED ACTION

Standards development testing and compliance testing activities take place at existing indoor and outdoor laboratory settings and firing ranges that are already undertaking similar work and activities. Potential ground disturbance is the only activity associated with standards development testing and compliance testing that has the potential to impact wetlands, and this is limited to ground disturbing activities associated with bullet cleanup activities at outdoor firing

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

ranges. Soil disturbance for these activities is generally limited to the surface layer of soil. Examples of such activities include raking and/or sifting bullet fragments from the soil or the use of a vacuum system for the same purpose.¹¹⁷ Therefore, disturbance that is significant enough to trigger avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA is not expected.

Factors that influence significance include the presence and proximity of a wetland and if bullet cleanup methods used by an outdoor firing range present the potential for substantial soil disturbance. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures as needed, standards development testing and compliance testing are not expected to lead to direct or indirect impacts that trigger avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA. Therefore, no significant wetlands impacts are anticipated from standards development testing and compliance testing activities.

Biological Resources

This section discusses vegetation, wildlife and habitat, and federally protected species impacts.

Vegetation

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to vegetation.

PROPOSED ACTION

Standards development testing and compliance testing activities that take place at outdoor laboratory settings and firing ranges present the potential for vegetation impacts as a result of ground disturbing activities. Potential ground disturbance is limited to bullet cleanup activities, which are generally limited to the surface layer of soil in areas where these activities have been carried out previously where the presence of vegetation is limited. Examples of such activities include raking and/or sifting bullet fragments from the soil or the use of a vacuum system for the same purpose.¹¹⁸ Therefore, disturbance that is significant enough to result in permanent loss or significant disturbance of natural vegetation communities is not expected.

The primary factor that influences significance is if bullet cleanup activities will result in ground disturbance that leads to vegetation removal. This factor is also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures as needed, standards development testing and compliance testing activities are not expected to result in the introduction of invasive or exotic species and/or disturbance or permanent loss of natural vegetation communities. Therefore, no significant vegetation impacts are anticipated from standards development testing and compliance testing activities.

Chapter 4. Impacts Analysis: 4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts

Wildlife and Habitat

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to wildlife or habitat.

PROPOSED ACTION

Potential wildlife impacts as a result of standards development testing and compliance testing activities are limited to impacts as a result of noise pollution and ground disturbance:

- **Noise Pollution:** As discussed previously in the analysis of noise impacts, it is anticipated that adequate soundproofing measures would be in place for indoor locations where standards development testing and compliance testing activities that produce higher decibel noise would be carried out, resulting in little to no noise spreading to the exterior of the building to expose people or noise sensitive areas/facilities. Additionally, because these facilities are used regularly for these activities, it is anticipated that activities that involve the use of firearms outdoors follow best practice to minimize noise impacts to the surrounding area, and that these facilities are not located in close proximity to sensitive wildlife.
- **Ground Disturbance:** Potential ground disturbance associated with standards development testing and compliance testing is limited to ground disturbing activities associated with bullet cleanup activities at outdoor firing ranges. Soil disturbance for these activities is generally limited to the surface layer of soil. Examples of such activities include raking and/or sifting bullet fragments from the soil or the use of a vacuum system for the same purpose.¹¹⁹ Therefore, disturbance that is significant enough to result in wildlife impacts are not expected. However, if bullet clean-up activities result in more substantial ground disturbance these activities present the potential to disturb underground wildlife habitat and other underground ecological functions.

Factors that influence significance include if a facility has adequate sound proofing measures and best practices in place to minimize potential noise impacts to the outside environment, the proximity of sensitive wildlife and habitat to the facility, if there is underground habitat or ecological functions present that will be disturbed as a result of ground disturbing activities, and if bullet cleanup methods used by an outdoor firing range present the potential for substantial soil disturbance. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to result in the disruption or disturbance of nearby wildlife populations for a prolonged period of time, over a large area; impact a particularly sensitive or valuable wildlife or habitat resource with permanent implications; or violate local, state, tribal, or federal regulations which protect wildlife and their habitats. Therefore, no significant wildlife and habitat impacts are anticipated from standards development testing and compliance testing activities.

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

Federally Protected Species

The Wildlife and Habitat “No Action” and “Proposed Action” discussions above are applicable impacts analyses for the federally protected species resource area.

In addition to the factors listed in the Wildlife and Habitat section above, the significance of impacts for federally protected species would vary at the site level depending on the presence of federally protected species in the area, and proximity to their critical habitats. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to result in the take of a migratory bird or T&E species or lead to impacts on to the critical habitat of a T&E species. Therefore, no significant federally protected species impacts are anticipated from standards development testing and compliance testing activities.

Cultural Resources

This section discusses archaeological resource impacts. Please note, the “Historic Structures” resource area has been dismissed from further analysis, as discussed in [Section 4.6.1](#).

Archaeological Resources

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be impacts to archaeological resources.

PROPOSED ACTION

Potential ground disturbing activities associated with standards development testing and compliance testing is limited to bullet clean-up activities at outdoor firing ranges. Soil disturbance for these activities is generally limited to the surface layer of soil. Examples of such activities include raking and/or sifting bullet fragments from the soil or the use of a vacuum system for the same purpose.¹²⁰ Furthermore, these activities take place at established outdoor firing ranges where it is anticipated that a similar bullet cleanup activities and associated ground disturbance has taken place regularly in the past. The disturbance of a previously disturbed area to a similar extent reduces the potential of encountering or disturbing archaeological resources, as it is likely they would have been discovered as a result of previous disturbance.

Factors that influence significance include if ground disturbance will take place in an archaeologically sensitive or historic area and ground disturbance that exceeds the depth of previously known disturbance. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to directly or indirectly diminish an archaeological resource’s integrity or historic or cultural significance or equate to an “adverse effect” determination under Section 106 of the NHPA. Therefore, no significant archaeological resources impacts are anticipated from standards development and compliance testing activities.

Workplace Safety and Health

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to workplace safety and health.

PROPOSED ACTION

As discussed throughout [Section 4.6.2](#), potential environmental impacts that have the potential to affect the health and safety of the public, such as contamination, are not anticipated to be significant as a result of standards development testing and compliance testing. Therefore, these activities do not have the potential to pose an immediate threat to the health and safety of the public.

Standards development testing and compliance testing activities could lead to impacts on workplace safety and health. Potential impacts include:

- **Temporary or long-term exposure of workers to lead and lead dust:** Exposure to lead and lead dust has the potential to lead to acute toxicity or persistent/chronic health effects on humans and the environment if not properly used and stored.¹²¹
- **High noise levels:** Standards development testing and compliance testing activities that involve the use of firearms have the potential to expose employees to noise levels that could have long-term hearing impacts.
- **Safety concerns associated with use of firearms:** Standards development testing and compliance testing activities are carried out at facilities that are regularly used for testing activities that may involve the use of firearms are carried out by professionals that are adequately trained.

Although standards development testing and compliance testing activities present the potential for workplace health and safety impacts, OJP requires that all standards development testing and compliance testing activities be carried out at facilities that comply with all applicable OSHA regulations, including standards for laboratories and the General Duty Clause, which requires employers to provide a safe and hazard-free work environment as part of a facility's compliance with all applicable OSHA regulations. It is anticipated that labs would have existing employee protection plans in place to limit workplace safety and health impacts. Examples of potential workplace health and safety protocols include the use personal protective equipment when appropriate to minimize potential impacts from airborne contaminants, high-decibel noise, and the use of firearms. Compliance with these regulations minimize the potential for workplace safety and health impacts.

Factors that influence significance include if a facility has a history of violations of workplace safety and health conditions, if the OSHA General Duty Clause or OSHA laboratory standards were violated, if the facility has sufficient workplace safety protocols in place with respect to the use of hazardous materials, firearms, or exposure to high noise levels. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to violate OSHA's General Duty Clause or other OSHA

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

workplace safety and health standards or pose an immediate threat to the health and safety of the workers or public. Therefore, no significant workplace safety and health impacts are anticipated from standards development testing and compliance testing activities.

Environmental Justice

NO ACTION

Under the no action alternative, OJP-funded activities would not occur and there would be no impacts to environmental justice.

PROPOSED ACTION

If standards development testing and compliance testing activities occur in an area with a high percentage of minority or low-income populations, standards development testing and compliance testing activities have the potential to result in environmental justice impacts. If a project is identified as being in an area with the presence of environmental justice population(s) potential environmental justice impacts must be considered. Where environmental justice populations are present, the potential for otherwise non-significant impacts to resources (such as solid or hazardous waste) must be considered in light of their potential to be significant in environmental justice populations. However, as discussed throughout [Section 4.6](#), standards development testing and compliance testing activities take place in indoor and outdoor laboratory settings at existing facilities and are not expected to result in significant impacts for other resource areas and are not likely to result in disproportionately high and adverse human health or environmental effects on environmental justice populations.

Factors that influence significance include the concentration of environmental justice populations in the area, the presence of pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area, and the significance of other impacts to the human environment as a result of the standards development testing and compliance testing activities. These factors are also detailed in [Table 23](#) included at the end of [Section 4.6.3](#). With the application of best management practices and mitigation measures when needed, standards development testing and compliance testing activities are not expected to result in disproportionately high and adverse human health or environmental effects on environmental justice populations. Therefore, no significant environmental justice impacts are anticipated from standards development testing and compliance testing activities.

4.6.3 Requirements for Further Analysis and Mitigation Measures

As discussed throughout [Section 4.6.2](#), significant impacts are not expected for most OJP-funded standards development testing and compliance testing activities. However, OJP must consider each proposed activity individually, based on the scope of the activity in its unique location, including the surrounding resources and populations that could potentially be impacted. The following table should be reviewed for each proposed standards development testing and compliance testing activity to make an individual determination as to whether further NEPA analysis is required for that specific activity.

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

The table below explains when a tiered analysis (EA or EIS) is required to evaluate potentially significant impacts based on the significance criteria defined in this PEA. The table also lists factors to help OJP with this determination. The tiered analysis should be limited to resource areas that have not already been sufficiently covered by this PEA and may have significant impacts.

- A **tiered EA** is required if a proposed activity may have significant impacts, or if there is incomplete information to determine if impacts may be significant.
- A **tiered EIS** is required if the proposed activity has significant impacts, and those significant impacts will not be mitigated below the significance level.

If a tiered EA identifies significant impacts, OJP must implement mitigation measures to reduce the significance of those impacts below the significance criteria threshold and list these measures in the finding of no significant impact (FONSI), if determined, for the tiered EA. **If a tiered EA identifies significant impacts and mitigation measures are not identified to mitigate impacts below the level of significance, then OJP must prepare an EIS.** See the “sample mitigation measures” in this table for recommended measures to reduce the significance of impacts. Note that other mitigation measures may be used instead of the listed mitigation measures if they reduce impacts below the level of significance and are approved by OJP.

Cumulative Impacts

When evaluating whether a tiered NEPA analysis is required, OJP must determine if a proposed activity has the potential for significant cumulative impacts in the context of past, ongoing, and reasonably foreseeable future actions within or near the area of potential effect for the proposed action. OJP must consider federal and non-federal actions, regardless of the funding source, when considering potential cumulative impacts. Cumulative impacts must be evaluated for each proposed activity.

A tiered NEPA analysis evaluating potentially significant cumulative impacts is required if the proposed activity, in context of other past, ongoing, or future activities, would exceed the capacity of existing infrastructure (energy supply, water supply, etc.) or contribute to resource issues in the area. Factors to consider whether a tiered NEPA analysis is required to evaluate cumulative impacts include:

- Other actions (past, present, and reasonably foreseeable future actions) within or near the area of potential effect that may have an environmental impact.
- Resource issues (e.g., flooding) and sensitive environmental resources (e.g., endangered species, wetlands) in or near the area of potential effect where the addition of the proposed activity in the context of past, present, and reasonably foreseeable future actions could increase the potential for significant cumulative impacts.

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

Table 23. Standards Development Testing and Compliance Testing Activities Requirements for a Tiered EA/EIS and Sample Mitigation Measures

Standards Development Testing and Compliance Testing Activities
Land Use – Zoning
Tiered EA/EIS evaluating transportation impacts and mitigation required if proposed activity would: conflict with any local, state, or federal land use plans or local zoning regulations.
Factors to consider whether tiered EA/EIS is required: the facility location is not properly zoned for the proposed standards development testing and compliance testing activities or is otherwise incompatible with uses in the vicinity of the lab.
Sample mitigation measures: obtain a zoning variance.
Air Quality
Tiered EA/EIS evaluating air quality and mitigation required if proposed activity would: generate emissions exceeding de minimis threshold of NAAQS or lead to new and sustained exposure of people, wildlife, or vegetation to emissions that exceed NAAQS.
Factors to consider whether tiered EA/EIS is required: the activities result in high emission levels; the lab facility does not have adequate air pollution reduction measures in place; equipment that will be used does not have adequate permitting with respect to air quality; the facility is in a non-attainment area.
Sample mitigation measures: reduce the number of activities that result in air pollution; implement new air pollution reduction measures at the facility; obtain adequate air quality permitting for equipment.
Geology, Topography, and Soils
Tiered EA/EIS evaluating geology, topography, and soils impacts and mitigation required if proposed activity would: result in substantial erosion or loss of topsoil that significantly reduces vegetation or soil function.
Factors to consider whether tiered EA/EIS is required: bullet cleanup activities for an outdoor firing range present the potential for substantial soil disturbance.
Sample mitigation measures: use bullet cleanup methods that result in less disturbance; select an alternative firing range with bullet cleanup activities that result in less disturbance.
Solid and Hazardous Waste
Tiered EA evaluating solid and hazardous waste impacts and mitigation required if proposed activities would: result in improper collection, storage, transportation, or disposal of solid and/or hazardous waste per local, state, tribal, or federal requirements.
Factors to consider whether tiered EA/EIS is required: facility has inadequate or insufficient waste collection, storage, transport, and disposal protocols; a firing range does not use adequate best management practices to manage spent lead shots.
Sample mitigation measures: improve waste management protocols if not currently sufficient; implement adequate best management practices at the selected firing range; select an alternative firing range that uses best management practices for spent lead shots.
Energy
Tiered EA/EIS evaluating energy impacts and mitigation required if proposed activities would: result in a significant change in energy consumption as compared to existing energy consumption or if energy requirements exceed the area’s available energy supply as defined and established by local, municipal, county, or metropolitan region’s energy codes and policies.
Factors to consider whether tiered EA/EIS is required: the area the standards development testing and compliance testing activities will be taking place has energy scarcity issues (such as regular occurrences of energy shortages and outages); the equipment being used has higher energy usage requirements than the existing facility typically accommodates.
Sample mitigation measures: use more energy-efficient equipment; reduce the amount of standards development testing and compliance testing activities that are energy intensive; avoid operating during peak energy times in the area.
Noise

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

Standards Development Testing and Compliance Testing Activities
Tiered EA/EIS evaluating noise impacts and mitigation required if proposed activity would: lead to prolonged exposure of people, or noise sensitive areas/facilities to noise that violated applicable local, state, or federal noise regulations.
Factors to consider whether tiered EA/EIS is required: the facility has inadequate sound proofing measures for the activities that will be taking place; there are sensitive noise receptors in the area (residences, schools, hospitals, parks, etc.).
Sample mitigation measures: increase sound proofing measures at the facility; avoid noise polluting activities at certain times of day or year (depending on the surrounding sensitive noise receptors).
Water Resources - Water Quality, Surface Water, Groundwater, Federally Protected Water Resources
Tiered EA/EIS evaluating water resource impacts and mitigation required if proposed activities would: directly or indirectly release contaminants into nearby water bodies that exceed federal, state, territory, or tribal WQS; violate TMDL targets; or result in significant changes in the availability of surface water or groundwater; or violate applicable state, tribal, or federal regulations for federally protected waters (coastal barrier resources, coastal zones, and wild and scenic rivers).
Factors to consider whether tiered EA/EIS is required: the facility is in close proximity to nearby water bodies, aquifer, or federally protected water resources; activities require a high input of water; inadequate or insufficient waste collection, storage, transport, and disposal protocols.
Sample mitigation measures: improve waste management protocols if not currently sufficient; reduce the number of activities that require a high input of water.
Water Resources – Floodplains
Tiered EA/EIS evaluating floodplain impacts and mitigation required if proposed activity would: directly or indirectly alter a floodplain enough to present a substantial increased flood danger to the area or if the proposed activity is noncompliant with applicable state or local floodplain ordinances, or federal requirements (such as under E.O. 11988 and E.O. 13690).
Factors to consider whether tiered EA/EIS is required: the facility is located in a floodplain and is noncompliant with applicable state or local floodplain ordinances (including maintaining adequate flood insurance); activities have the potential to impact a floodplain directly or indirectly; adequate flood insurance is not maintained by the facility.
Sample mitigation measures: ensure facility compliance with all applicable floodplain ordinances.
Water Resources – Wetlands
Tiered EA/EIS evaluating wetland impacts and mitigation required if proposed activity would: directly or indirectly impact wetlands that triggers avoidance, minimization, or compensatory mitigation measures under Section 404 of the CWA.
Factors to consider whether tiered EA/EIS is required: an outdoor firing range is located on or in proximity to a wetland; bullet cleanup methods used by an outdoor firing range present the potential for substantial soil disturbance.
Sample mitigation measures: use an alternative outdoor firing range that is not on or in proximity to a wetland; use bullet cleanup methods that result in less disturbance.
Biological Resources – Vegetation
Tiered EA/EIS evaluating vegetation impacts and mitigation required if proposed activity would: lead to the introduction of invasive or exotic species or result in significant disturbance or permanent loss of natural vegetation communities.
Factors to consider whether tiered EA/EIS is required: bullet cleanup activities will result in ground disturbance that leads to vegetation removal.
Sample mitigation measures: use bullet cleanup methods that will minimize or eliminate vegetation removal.
Biological Resources - Wildlife and Habitat
Tiered EA/EIS evaluating wildlife and habitat impacts and mitigation required if proposed activity would: disrupt or disturb nearby wildlife populations or violates local, state, tribal, or federal regulations which protect wildlife and their habitat.

Chapter 4. Impacts Analysis: **4.6 Standards Development Testing and Compliance Testing for Protective Equipment Impacts**

Standards Development Testing and Compliance Testing Activities
<p>Factors to consider whether tiered EA/EIS is required: wildlife and habitat are present in the activity area; the lab facility has inadequate sound proofing measures for the activities that will be taking place; there is underground habitat or ecological functions present that will be disturbed as a result of ground disturbing activities; bullet cleanup methods used by an outdoor firing range present the potential for substantial soil.</p>
<p>Sample mitigation measures: decrease the frequency of activities that result in significant noise pollution or avoid performing those activities during certain times of year (ex. nesting or breeding season); avoid areas near sensitive wildlife and habitat completely; minimize the extent of ground disturbance; select an alternative location where underground habitat and ecological functions are not present.</p>
Biological Resources- Federally Protected Species
<p>Tiered EA/EIS evaluating federally protected species impacts and mitigation required if proposed activity would: result in the take of a migratory bird or T&E species or led to impacts on to the critical habitat of a T&E species.</p>
<p>Factors to consider whether tiered EA/EIS is required: federally protected species or their critical habitat are present in the activity area; the lab facility has inadequate sound proofing measures for the activities that will be taking place.</p>
<p>Sample mitigation measures: see mitigation measures described under Biological Resources – Wildlife and Habitat.</p>
Cultural Resources- Archaeological Resources
<p>Tiered EA/EIS evaluating cultural resource impacts and mitigation required if proposed activity would: directly or indirectly diminish a cultural resource’s integrity or historic or cultural significance or equate to an “adverse effect” determination under Section 106 of the NHPA.</p>
<p>Factors to consider whether tiered EA/EIS is required: ground disturbance will take place in an archaeologically sensitive or historic area; ground disturbance that exceeds the depth of previously known disturbance.</p>
<p>Sample mitigation measures: avoid archaeologically sensitive areas; decrease the degree of proposed ground disturbance; incorporate unintended discovery procedures in the event archaeological resources or human remains are encountered.</p>
Workplace Safety and Health
<p>Tiered EA/EIS evaluating workplace safety and health impacts and mitigation required if proposed activity would: violate OSHA’s General Duty Clause or other OSHA workplace safety and health standards and regulations applicable to the proposed activity; or pose an immediate threat to the health and safety of the workers or public.</p>
<p>Factors to consider whether tiered EA/EIS is required: the facility has a history of violations of workplace safety and health conditions; the facility does not have sufficient workplace safety protocols in place with respect to the use of hazardous material, firearms, or exposure to high noise levels.</p>
<p>Sample mitigation measures: supply and enforce the use of personal protective equipment (such as earmuffs, respirators, or face shields); implementation of additional worker training or new training programs specific to the testing to be conducted.</p>
Environmental Justice
<p>Tiered EA/EIS evaluating environmental justice impacts and mitigation required if proposed activity would: lead to disproportionately high and adverse human health or environmental effects on environmental justice populations.</p>
<p>Factors to consider whether tiered EA/EIS is required: presence of environmental justice populations in the area the presence of pre-existing environmental burdens or other relevant health concerns for environmental justice populations in the area; the proposed action presents the potential for impacts on the human environment.</p>
<p>Sample mitigation measures: consider alternative locations; implement mitigation measures specific to other resource areas to minimize negative impacts to environmental justice communities.</p>

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