

# **Environmental Assessment**

**Prepared By:**

**Prepared For:**

**Date:**

**This Environmental Assessment fulfills the requirement of the National Institute of Justice with activities conducted by the Allegheny County Office of the Medical Examiner Forensic Laboratory in association with the following projects comply with the National Environment Policy Act.**

**I. Project Name:       NIJ's FY 2008 Forensic DNA Unit  
                                  Efficiency Improvement Program**

Grant Program:       Forensic DNA Unit Efficiency Improvement

Grant #:               2010-ST-XX-XXXX

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## **EXECUTIVE SUMMARY**

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This Environmental Assessment (EA) has been prepared to address the environmental impact of the grant program, NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program, at the Office of the Medical Examiner Forensic Laboratory, located at 1520 Penn Avenue, Pittsburgh PA 15222. This EA has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA, 40 CFR Parts 1500-1508, and the National Institute of Justice Draft Guidance for Preparing Environmental Assessments.

### **PURPOSE AND NEED OF THE PROPOSED ACTION**

The Allegheny County Office of the Medical Examiner Forensic Laboratory has operated a casework only forensic DNA laboratory since 1995. The Laboratory is staffed and funded for the analysis of homicides, sexual assault and property crime cases. The purpose of NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Programs is to support and enhance the law enforcement process and potentially improve the general public safety of Allegheny County by increasing the DNA testing capabilities of the Allegheny County Office of the Medical Examiner Forensic Laboratory. The expansion of cases processed for DNA testing has the potential to assist all 62 Allegheny County law enforcement agencies by identifying perpetrators of crimes beyond the traditional class of violent offenders. NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program provides this laboratory with the means to offer DNA testing for an expanded scope of criminal cases, which occur on a daily basis in Allegheny County, such as weapons possession, felony assaults and other crimes. NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program is fundamental to achieving the goal of expansive case testing and enhanced laboratory capacity.

### **PROPOSED ACTION**

The goal of NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program is to increase casework capacity, while also decreasing case turn-around time. This shall be accomplished by overtime payments to Forensic Biology personnel, enhanced training, funding of necessary laboratory supplies, and acquisition of automated scientific equipment.

### **ALTERNATIVES**

The proposed action set forth above is the only means of achieving the objectives of the Backlog reduction project. No other action alternatives were considered.

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## **NO ACTION ALTERNATIVE**

Without the financial support which NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program provides, the Forensic Biology Section would be unable to expand its casework capacity and therefore be unable to provide enhanced forensic services and support to the law enforcement agencies in Allegheny County. NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program provides for overtime work and automated scientific equipment which, together, are critical to increasing casework capacity and decreasing case turn-around time.

## **ENVIRONMENTAL AND SOCIOECONOMIC CONSEQUENCES**

There will be no significant environmental and socioeconomic impact consequent to NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program.

## **CONCLUSION**

Implementation of the proposed NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program is not expected to result in significant adverse impacts on the environment. All of the proposed enhanced casework will be performed in the existing Medical Examiner Forensic Laboratory facility located at 1520 Penn Avenue, Pittsburgh, PA 15222; no construction is required. All DNA testing will be performed using current methodology; no new types of reagents will be introduced or necessary. Though the processing of more evidence samples will increase the amount of consumed chemicals, only a small percentage of these samples are treated with hazardous reagents – all of which are handled and disposed of according to OSHA and EPA guidelines. Based on the above, the Allegheny County Office of the Medical Examiner Forensic Laboratory believes an environmental impact statement is not required. A Finding of No Significant Impact (FONSI) is appropriate.

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## 1.0 DESCRIPTION OF PROPOSED ACTIONS

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### 1.1 Background

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program grant provides funding to aid existing state and local government laboratories in reducing DNA casework samples as well as performing post conviction DNA testing. NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program grant provides funding to improve existing laboratory infrastructure and to maximize testing capabilities.

This Environmental Assessment analyzes potential environmental impact consequent to NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program. This Assessment has been prepared pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969 (NEPA), (42 USC 4331 *et seq.*), the regulations of the Council on Environmental Quality (CEQ) that implement NEPA procedures (40 CFR 1500-1508), and National Institute of Justice (NIJ) Draft Guidance for Preparing Environmental Assessments. The information presented in this document will serve as the basis for concluding that implementation of the proposed action will not result in a significant impact to the environment, and that therefore a Finding of No Significant Impact (FONSI) is appropriate.

See Attachment 1 (Laboratory Floor Plan.pdf) for floor plan of Forensic Laboratory and detail of location proposed action would take place.

### 1.2 Purpose and Need

The Allegheny County Office of the Medical Examiner Forensic Laboratory has operated a casework only forensic DNA laboratory since 1995. The Laboratory is staffed and funded for the analysis of homicides, sexual assault and property crime cases. The purpose of NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Programs is to support and enhance the law enforcement process and potentially improve the general public safety of Allegheny County by increasing the DNA testing capabilities of the Allegheny County Office of the Medical Examiner Forensic Laboratory. The expansion of cases processed for DNA testing has the potential to assist all 62 Allegheny County law enforcement agencies by identifying perpetrators of crimes beyond the traditional class of violent offenders. NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program provides this laboratory with the means to offer DNA testing for an expanded scope of criminal cases, which occur on a daily basis in Allegheny County, such as weapons possession, felony assaults and other crimes. NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program is fundamental to achieving the goal of expansive case testing and enhanced laboratory capacity.

### **1.3 Alternatives**

#### **1.3.1 Proposed Action**

Funding provided by NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will be used to create a streamlined sample processing paradigm. This will be accomplished through the integration of information technology and automation into the current process map. The chemicals associated with this process will be used to validate and implement the automation instrumentation. The majority of the chemicals will be kit based manufactured chemicals (e.g. DNA IQ™, Plexor™, PowerPlex™16, etc.) that will be used to isolate, quantify, and type DNA materials with respect to accepted forensic DNA genetic markers. All work will be done in an existing facility. Reagents will be discarded based on their NFPA chemical hazard ratings in accordance with the Allegheny County Office of the Medical Examiner chemical hazard removal policy. The expansion of forensic biology casework will not require the use of any new chemicals or reagents.

#### **1.3.2 No Action**

If the Allegheny County office of the Medical Examiner Forensic Laboratory were unable to support the law enforcement agencies in Allegheny County by expanding the scope of cases accepted for DNA analysis, the County as a whole would miss the opportunity to take full advantage of the national CODIS database.

#### **1.3.4 Alternatives Considered But Not Carried Forward**

It was determined that no other alternatives would meet the purpose and need for action. Therefore, no other alternatives were carried forward.

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## 2.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

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This chapter describes the existing condition of environmental resources potentially affected by NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program.

The Proposed Action was evaluated for applicability to the impact areas in to NIJ's Draft Guidance for Preparing Environmental Assessments.

It was determined that certain environmental and socioeconomic resources that frequently receive attention in NEPA analyses would not be affected by the Proposed Action:

- Air Quality

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program involves forensic testing within an existing facility. No new emissions will be produced as a consequence of this project. There will be no significant impact to indoor and outdoor air quality.

- Construction

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will be conducted in an existing facility located in Allegheny County. No new or additional construction is required.

- Endangered Species

will be conducted in an existing facility located in Allegheny County. No new or additional construction is required. There will be no impact to endangered species.

- Energy Impacts

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program proposed action would occur within an existing facility and involves research and testing activities. Enhancing the laboratory's capacity for casework will require proportionate additional energy; however, there will be no significant increase in the demand of the region's energy supply.

- Geology, Topography, Soils (Includes Farmland Protection):

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will have no impact to surrounding geography, topography, and soils. DNA analysis and testing will take place in an existing facility; no additional construction or other ground disturbing activities will occur.

- Historic Preservation

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will be conducted in a remodeled facility, completed in July 2009, which has not been designated as an historic building - as determined by consultation with the State Historic Preservation Officer (SHPO). There will be no impact upon historic preservation.



- Human Population

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will not affect the composition of the surrounding population, or impact housing demand or employment levels, nor affect property values. There will be no socioeconomic impact to the human population.

- Land Use

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will be conducted within an existing facility. These activities do not require, nor will result in, a change in land use of the site or surrounding sites. Therefore, there will be no impact to land use.

- Natural Environment (Wildlife, Wildlife Habitat, and Vegetation)

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will be conducted in an existing facility; no new or additional construction is required. There will be no impact to the natural environment.

- State Environmental Policy Act:

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will be conducted at all times in accordance with all applicable state, federal, and local regulations.

- Solid Waste Management

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will not generate or create any new solid waste, nor will it require disposal of solid waste.

- Transportation

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will not generate new traffic or create an additional need for parking. No impact will occur to the regional traffic network.

- Water Resources (Water Quality, Surface Water, Wetlands, Floodplains, Coastal Barrier Resources, Wild and Scenic Rivers)

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will not impact surrounding water resources.

## **2.1 Other: Chemical Use**

### **2.1.1 Affected Environment**

Currently, the Allegheny County Office of the Medical Examiner Forensic Laboratory facility uses chemicals to process evidence in the disciplines of Trace, Firearms and Toolmarks, Forensic Biology (Serology and DNA), Toxicology (Post Mortem and Anti Mortem), Controlled Substance, and Latent Prints. These chemicals are stored, used, and disposed or according to the following guidelines set forth by the Pennsylvania Department of Environmental Protection and internal laboratory policy and procedures, to include generation, storage, transportation and disposal of all chemical waste generated in the laboratory.

### **2.1.2 Environmental Consequences**

Proposed Action: Under the Proposed Action the Allegheny County Office of the Medical Examiner Forensic Laboratory would use chemicals to process evidence in the disciplines of Trace, Firearms and Toolmarks, Forensic Biology (Serology and DNA), Toxicology (Post Mortem and Anti Mortem), Controlled Substance, and Latent Prints. The chemicals would be used and stored according to manufacturer's recommendations and would be disposed of according to Pennsylvania Department of

Environmental Protection Standards. For specifics, please refer to the attached Chemical List. Under the Proposed Action, impacts from chemical use would be negligible.

No Action: Under No Action, current conditions would remain and there would be no impacts from chemical use.

## **2.2 State Environmental Policy Act**

NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will be conducted at all times in accordance with all applicable Pennsylvania State environmental regulations.

## **2.3 Cumulative Impacts**

The proposed action of NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will result in proportional increases in regulated biomedical and chemical waste. However, enhanced forensic DNA analysis and testing will not result in significant increase in such waste, when combined with past, present, or reasonably foreseeable future actions.

## **2.4 Unavoidable Adverse Impacts**

Proportionate increase in regulated biomedical and chemical waste is an unavoidable consequence of enhanced testing capacity; however, this increase will not result in a significant impact upon the environment.

## **2.5 Mitigation Measures**

The work conducted under the NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program will be conducted at all times in accordance with all applicable Pennsylvania State Environmental regulations.

## **2.6 Conclusion**

Implementation of the proposed NIJ's FY 2008 Forensic DNA Unit Efficiency Improvement Program is not expected to result in any significant adverse impacts on the environment. All DNA testing will be performed in an existing facility, using current methodology; no new types of reagents will be introduced or necessary. Though the processing of more evidence samples will increase the amount of consumed chemicals, only a small percentage of these samples are treated with hazardous reagents – all of which are handled and disposed of according to OSHA and EPA guidelines. Based on the above, an environmental impact statement is not required. A Finding of No Significant Impact (FONSI) is appropriate.

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### 3.0 WORKS CITED

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Safety Manual, Rev. 3, Allegheny County Office of the Medical Examiner

<http://www.depweb.state.pa.us/dep/site/default.asp>

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#### **4.0 LIST OF PREPARERS**

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## ATTACHMENTS

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**Attachment 1: Laboratory Floor Plan.pdf**

**Attachment 2: Lab Chemicals NEPA FINAL.xlsx**