d. District Department of Transportation

Government of District of Columbia

Adrian M. Fenty, Mayor

Gabe Klein, Director

DISTRICT DEPARTMENT OF TRANSPORTATION

DISTRICT DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL MANAGEMENT SYSTEM

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DISTRICT DEPARTMENT OF TRANSPORTATION

Environmental Management System Manual

Gabe Klein, Director
Karina Ricks, Associate Director

March, 2010

**Federal Highway
Administration**

d.

**District Department
of Transportation**

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One of my key goals as the Director of the District Department of Transportation (DDOT) is to increase environmentally sustainable practices at DDOT. Development and implementation of an Environmental Management System at DDOT will ensure that our agency meets this goal. I am very pleased that we are undergoing this process under my tenure as the head of this agency. The work of DDOT, in many ways, is already very sustainable. The use of this Environmental Management System will help us enhance our agency's environmental performance by incorporating environmental considerations within all the business operations.

Developing a culture of developing transportation systems in an environmentally sustainable manner and using resources efficiently is my priority. With the development of this Environmental Management System we have taken a very important step towards this direction.

Gabe Klein
Director

The District Department of Transportation (DDOT) recognizes its role as a steward of the environment. DDOT is committed to protecting the environment by developing transportation projects and conducting operations in an environmentally sustainable manner. DDOT has decided to develop an Environmental Management System (EMS) to ensure environmental considerations are part of all DDOT activities.

This EMS manual provides a general structure of the EMS at DDOT along with instructions for implementation that includes the framework to develop DDOT environmental objectives and targets. The guidance given in the document can be used to develop annual EMS goals for the department along with monitoring and evaluation methods. The EMS structure described in the manual has been developed following ISO 14001-2004.

EMS at DDOT is planned to be implemented in different phases. In the first phase, EMS will be implemented on the DDOT Project Development & Environmental Review process along with the Office Operations of DDOT's Transportation Policy & Planning Administration (TPPA). This manual contains information on the basic structure of an EMS, structure of EMS at DDOT, Project Development & Environmental Review EMS, and Office Operations EMS at DDOT. DDOT current environmental policy and environmental forms are provided in Appendix A, while templates for preparing EMS reports are also provided in appendices B & C.

Faisal Hameed
Program Manager,
Project Development, Environment, & Sustainability
March, 2010

Table of Contents

1. Introduction

1. Introduction

1. Environmental Management System (EMS):

An Environmental Management System (EMS) is a management system that focuses on incorporating environmental considerations in business practices. In simple terms an EMS is a way of incorporating environmental thinking into an organization's daily activities.
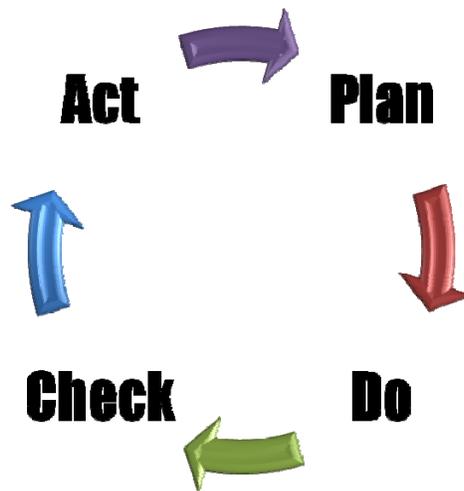
Figure 1: Plan-Do-Check-Act Model

U.S Environmental Protection Agency (EPA) defines EMS as "a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency". The American Association of State & Highway Officials (AASHTO) defines EMS as "the organizational structure and the associated responsibilities and procedures to integrate environmental considerations and objectives into the ongoing management decision-making processes and operations of an organization".

There are different methods of developing an EMS. The most commonly used method is called "Plan-Do-Check-Act" model (figure 1). The two very important steps in developing an EMS for an organization are to:

- determine and define the scope of the EMS for the organization
- develop the environmental policy for the organization (if one does not exists)

Once the above two steps have occurred, then an EMS can be developed for an organization. As stated earlier Plan-Do-Check-Act model is the most commonly method for developing an EMS. This model can be explained as:

Plan:
As the name shows, this step primarily includes planning activities needed to develop and implement an EMS. This step leads to the development of work program that includes all activities, processes, procedures necessary to implement an EMS. This step includes the following elements:

- identifying environmental aspects and impacts of the organization and its activities
- identifying legal requirements
- identifying organizational and other requirements
- developing objectives, targets, programs, procedures and processes that meet the organization's environmental policy

Do:
In this step the actual implementation and operation of EMS takes place. In this step the elements identified in "Plan" are documented. Roles and responsibilities are identified as well as resources needed to implement the EMS. Staff is provided training and awareness regarding EMS while mechanisms are developed, documented, and implemented for communication and operational controls.

Check:
In this step the monitoring, checking, and evaluation of the organizations activities takes place to ensure conformance with EMS plans developed and implemented in step 1 "Plan" and step 2 "Do". Procedures, processes, and activities are reviewed (audited) and corrective actions are identified.

Act:
In this step the management reviews the EMS, develops corrective actions for the EMS as well as reviews the evaluation reports and corrective actions identified in step 3 "Check" and then acts on these corrective actions.

The international Standards Organization (ISO) uses a process approach for EMS which is based on the Plan-Do-Act-Check model. This process approach is shown in figure 2.
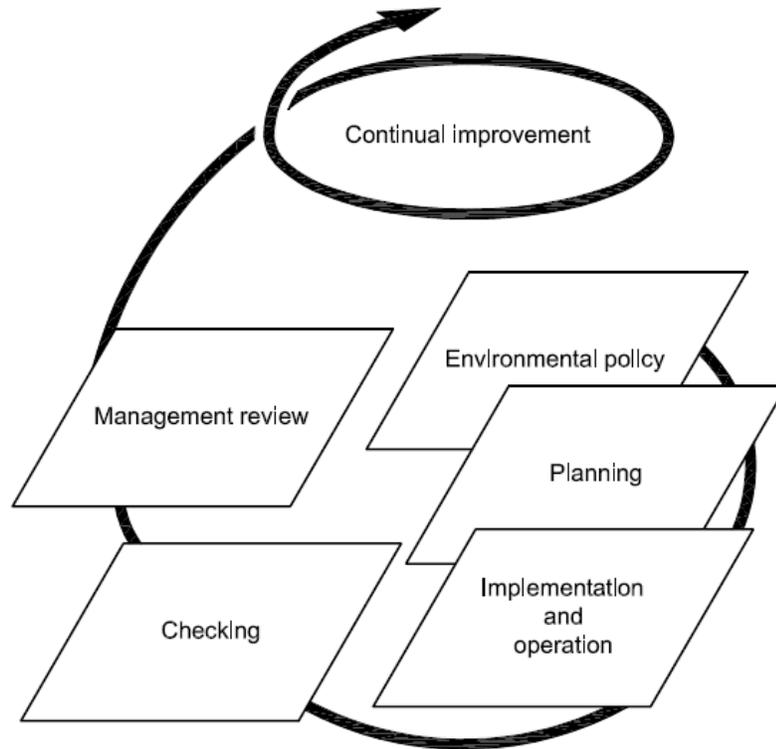
Figure 2: ISO Process Approach (source: ISO 14001-2004: Environmental Management Systems-Requirements with Guidance.)

2. EMS at the District Department of Transportation:

The District Department of Transportation (DDOT) considers itself an active steward of the environment and is committed to environmental excellence. In order to fulfill its responsibilities as a steward of the environment the DDOT leadership decided to develop and implement an Environmental Management System (EMS). As the first step of the process an environmental policy for the department was developed in 2004 and a gap analysis report was completed in 2006. After the completion of the gap analysis report, work was started to develop EMS scope, structure and implementation plan.

EMS development and implementation was started at DDOT to help DDOT in:

- Protecting the environment
- Preventing pollution
- Using resources efficiently
- Improving environmental performance
- Enhancing compliance
- Reducing risks

- Increasing efficiency
- Reducing costs
- Conducting operations in an environmentally sustainable manner
- Enhancing image with public, stakeholders, and other agencies
- Improving employee awareness of environmental issues and responsibilities
- Creating an Environmental Excellence Focused Culture at DDOT

3. Structure and Scope of EMS at DDOT:

EMS at DDOT has been developed by following the ISO 14001 structure. ISO 14001 offers a very structured approach to implement an EMS. Even though initially the DDOT will not get ISO 14001 certified however, the EMS at DDOT is developed by following ISO 14001 so that later on an ISO 14001 certification can be pursued.

EMS at DDOT will be implemented in phases. The scope of the first phase of the EMS at DDOT is:

1. DDOT Project Development & Environmental Review
2. Office Operations

In the DDOT Project Development & Environmental Review EMS environmental features will be incorporated in DDOT projects. In addition environmental review of DDOT projects in all phases of Project Development (i.e. Planning, Project Planning, Preliminary Engineering, Environmental Review, Final Design, Construction, and Maintenance) will be stream lined. Environmental reviews (or environmental audits) will take place at every phase of the Project Development process. Commitments and mitigations proposed will also be tracked so that they are carried through design and construction. These reviews will be documented and the project managers will be informed with the reviews. At the end of the year the results of these reviews will be documented in a report along with corrective actions and recommendations. These corrective actions will then be used to improve the overall EMS process at DDOT. The performance of the EMS process at DDOT will also be evaluated every year. Chapter 4 "Project Development & Environmental Review" provides details on this.

In the Office Operations EMS, TPPA and later all DDOT Office operations will be made environmentally sustainable by using environmentally preferred products, reducing energy consumption, reducing resources consumption, and increasing the use of recycled products. Chapter 5 "Office Operations and Resource Conservation" provides details on this.

Chapter 3, 4, and 5 are written in the ISO 14001 format.

2. DDOT Environmental Policy

2. DDOT Environmental Policy

DDOT has an active environmental policy. The first DDOT Environmental Policy was signed in December 2004. This environmental policy was revised on August 29, 2008. This environmental policy was revised again and was signed by the current DDOT Director on September 2, 2009.

DDOT Environmental Policy

The District Department of Transportation is committed to practicing Environmental Excellence as it fulfills its mission to enhance the quality of life for the District of Columbia residents, businesses, and visitors by ensuring that people, goods, and information move efficiently and safely, with minimal adverse impacts on the environment.

DDOT recognizes its role as a steward of the environment and is committed to the prevention of pollution. DDOT recognizes that its activities have the potential to impact the environment and as such is committed to incorporate environmental considerations in its activities by following these objectives:

1. Using resources efficiently
2. Developing transportation projects and conducting operations in an environmentally sustainable manner.

DDOT is committed to continual improvement of its environmental processes and is committed to comply with all applicable Federal and Local environmental laws, regulations, and other requirements. DDOT is actively pursuing the development and implementation of an Environmental Management System (EMS). This EMS structure is described in the DDOT Environmental Management System Manual which includes framework to develop DDOT's environmental objectives and targets.

Signed: Gabe Klein, Director
September 2, 2009

This DDOT Environmental Policy shall be documented, implemented, maintained, and communicated to everyone working for or on DDOT's behalf.

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3. DDOT EMS Structure

3. EMS Structure & Approach

This chapter provides basic structure of the DDOT EMS. This chapter is written in the ISO 14001 format.

1.0 PURPOSE

This document describes the basic structure, approach, and implementation guidance for the DDOT Environmental Management System (EMS).

2.0 SCOPE

This document and the EMS described herein apply to DDOT's efforts to plan, design, construct, and maintain transportation projects and to conserve resources in office operations. EMS at DDOT will be implemented in phases. The scope of the first phase of the EMS at DDOT is:

1. DDOT Project Development & Environmental Review
2. Office Operations

This chapter contains basic information about the above two. The details of both are provided in Chapter 4 and 5.

3.0 DEFINITIONS

The definitions for terms and titles used in this document are presented in the Glossary.

4.0 DDOT's EMS STRUCTURE & APPROACH

DDOT's EMS, as described in this document, is based upon the elements and criteria of the ISO 14001:2004 Environmental Management Systems Standard. This decision is based upon the considerations that: the ISO Standard applies substantial rigor to EMS structure and approach; reflects international agreement on EMS structure and approach; and, demonstrates DDOT's commitment to comprehensive EMS that conforms to widely accepted practice.

4.1 Environmental Policy (ISO 14001 Element 4.2)

DDOT's Environmental Policy has been developed to address the seven criteria noted in ISO Element 4.2. The Policy has been signed by the current Director of DDOT. The Environmental Management Representative is responsible for maintaining the Policy. The Director of DDOT will sign the Environmental Policy to demonstrate commitment of top management to DDOT's EMS. It is recognized that policies adopted by a Director remain in effect unless rescinded or amended by a successor.The Policy will be reviewed annually by the Environmental Management Representative to ensure that the Policy:

- Is appropriate to the nature and scale of DDOT's operations;
- Takes into account the environmental impacts of DDOT's operations as addressed by DDOT's EMS;
- Includes a commitment to continual improvement and pollution prevention;
- Incorporates a commitment to comply with applicable regulations and other requirements; and,
- Provides a basis for setting and reviewing environmental objectives and targets.

The Policy is communicated, via established mechanisms, to employees, the public, and all parties working on behalf of DDOT. These mechanisms include DDOT's website. Communication methods and responsibilities are described in Subsection 4.7, Communication.

4.2 Environmental Aspects (ISO 14001 Element 4.3.1)

Following are the operations identified as the significant aspects (i.e., focus) for DDOT's EMS.

Project Development & Environmental Review:
Project Development & Environmental Review is an important part of DDOT's overall process for planning, developing, and completing transportation projects. These projects include major transportation construction projects (e.g. bridge construction, rehabilitation, roadway reconstruction) as well as maintenance of the District's transportation infrastructure.

Office Operations:
Office operations include a number of activities such as administrative activities, staff transportation, printing, equipment use, etc.

The selection of the above significant aspects is based upon the following documents and considerations.

a. The DDOT EMS Gap Analysis Report (April 2006). This Report: Identified the various activities, services, and facilities of and under the control of DDOT and its administrations; Identified the environmental issues and opportunities (i.e., aspects and impacts) associated with DDOT's activities, services, and facilities; Characterized the environmental issues as significant, modest, and minimal.
b. The ability of a DDOT Administration to initiate, lead, and maintain an EMS that addresses significant environmental issues and opportunities and that provides a foundation for further EMS efforts in other administrations. Experience in other EMS efforts indicates that a step-by-step approach to EMS implementation provides management and effectiveness benefits.
c. Evaluation of the activities and associated environmental impacts
d. The ability of an EMS to support DDOT's efforts to ensure fulfillment of environmental commitments and requirements (a goal recognized by FHWA for all DOTs across the US).

Periodic Review: To conform to the ISO requirement for "…taking into account planned or new developments, or new or modified activities, products and services…", the Environmental Management Representative (EMR), or his/her designee, is responsible for ensuring the periodic review, and revision as necessary, of the environmental issues and opportunities and identification of significant aspects. This review will occur annually or more frequently if deemed necessary by DDOT senior management. The EMR, or designee, may be assisted in this effort by an EMS review panel comprised of representatives from various DDOT administrations. The periodic reviews will also incorporate decisions and directions resulting from Management Review (refer to Section 4.17).

4.3 Legal and other Requirements (ISO 14001 Element 4.3.2)

DDOT uses federal and local funds for its operations and transportation projects. This subjects the DDOT project and processes to all applicable federal and local laws and regulations including the National Environmental Policy Act (NEPA), National Historic Preservation Act, and District of Columbia Environmental Policy Act (DCEPA). In April 2009 Mayor Adrian M Fenty announced The Green DC Agenda which requires all DC agencies to consider sustainable environmental practices in their operations. Applying environmental principles is also part of the DDOT Action Agenda. In addition DDOT Environmental recognizes DDOT's role as a steward of the environment and is committed to the prevention of pollution. This policy commits DDOT to incorporate environmental considerations in its activities by following these objectives:

1. Using resources efficiently
2. Developing transportation projects and conducting operations in an environmentally sustainable manner.

DDOT's Environmental Process Manual provides details on the processes for NEPA, DCEPA, permitting, and related review and approval requirements for the planning, project development, design, and construction of transportation projects. This Manual is maintained by the TPPA Project Development, Environment, & Sustainability Division.

4.4 Objectives, Targets, and Programs (ISO 14001 Element 4.3.3)

The DDOT environmental policy is used to develop the Objectives, Targets, Measures, and Programs. These are identified in the section 4.3.3 of both Chapter 4 and 5. These objectives and targets are consistent with the DDOT environmental policy and various laws, regulations, and requirements. These objectives and targets will be reviewed annually.

4.5 Resources, Roles, Responsibility, and Authority (ISO 14001 Element 4.4.1)

As the "specific management representative" designated to manage, coordinate, and direct Department-wide EMS activities, the Environmental Management Representative (EMR) is responsible for: "Ensuring that an environmental management system is established, implemented and maintained in accordance with this international standard", and "Reporting to top management on the performance of the environmental management system for review, including recommendations for improvement." (excerpt from ISO 14001:2004, Element 4.4.1)

DDOT personnel involved in or affected by the activities associated with the significant aspects/EMS focus are identified in later sections of this document with the relevant roles, responsibilities, and authorities. The EMR, or his/her designee, is also responsible for ensuring that EMS changes that may affect personnel with designated roles and responsibilities within the EMS are communicated to the managers of these personnel.

4.6 Competence, Training, and Awareness (ISO 14001 Element 4.4.2)

DDOT's EMS Training Program is presented in the later chapters. Training Program elements/requirements include:

- Training materials describing activities, requirements, responsibilities, and support information for each step and action;
- Personnel and/or units responsible for presenting the training;
- The personnel (by job title and, as applicable, those working on behalf of DDOT) who receive the training; and,
- The schedule for initial and refresher training (to ensure that newly-assigned personnel are trained and that refresher training is provided).

EMS-required training may reference existing training courses/programs or may be incorporated into existing training courses/programs. Training materials are developed by management and staff from affected Administrations. Key elements of DDOT's EMS-related training include:

- The importance of conformance to DDOT's Environmental Policy, and to the procedures and requirements of DDOT's EMS;
- The significant environmental impacts (actual or potential) of their work activities and the environmental benefits of improved personal environmental performance;

- Their roles and responsibilities in achieving conformance with the Environmental Policy, with the procedures and requirements of DDOT's EMS, and with EMS-related emergency preparedness and emergency response requirements; and
- The potential consequences of departure from specified operating procedures.

The Environmental Management Representative (EMR), or his/her designee, is responsible for ensuring that EMS-related training needs have been identified for personnel working for or on behalf of DDOT. In the event of changes to DDOT's EMS or the operational controls (i.e., procedures) for implementing the EMS, the EMR is responsible for ensuring that training is revised as necessary to reflect these changes – the EMR may be assisted in this effort by staff involved in developing and presenting the training. The EMR is also responsible for ensuring that this training has been provided in accordance with the training program.

DDOT Senior Management will ensure that sufficient support and resources are available to the EMR or personnel identified in the training program to provide EMS-related training.

4.7 Communication (ISO 14001 Element 4.4.3)

The Environmental Management Representative (EMR), or his/her designee, is responsible for coordinating internal EMS-related communications – the EMR may be assisted in these efforts by different DDOT personnel. DDOT's internal communications are used to ensure that employees are aware of the following:

- The Environmental Policy;
- DDOT's EMS focus and the importance of conformance with its associated procedures and policies;
- EMS responsibilities and EMS guidance related to their job activities; and,
- EMS procedures, processes, and tools associated with their work activities.

External EMS communications can be proactive or responsive. Proactive EMS communications are coordinated with and released through the Communications Office in the Director's Office. External inquiries related to the EMS may be received by the Ward-based Team Project Managers or the Communications Office. Response to these inquiries would be coordinated with, released by, and maintained in detail by the Communications Office. The EMR maintains a summary of the EMS-related inquiry and response (including dates and contacts).

4.8 Documentation (ISO 14001 Element 4.4.4)

DDOT's EMS documentation includes:

- DDOT's Environmental Policy
- The scope of the EMS
- The main elements of the EMS
- Documents and records (as explained in later chapters).

4.9 Control of Documents (ISO 14001 Element 4.4.5)

The Environmental Management Representative (EMR), or his/her designee is responsible for ensuring that EMS-related documents are approved, created, distributed, maintained, reviewed, revised, and disposed. EMS documents include: the Environmental Policy and this EMS Implementation Guide. The EMR (or designee) is also responsible for maintaining an index and a repository (electronic or on paper) of EMS-related documents.

The EMR, or designee, is responsible for reviewing EMS documents at least every two years to ensure that the documents reflect current EMS conditions, determinations, and directives – documents may be reviewed more frequently (e.g., in response to audit findings). The EMR, or designee, is responsible for revising, with the support of others as needed, EMS documents when and as needed. Revisions will be made within the shortest practical time after the need for a revision is recognized by, or made known to, the EMR. As EMS documents are modified, created, or removed the EMR, or designee, is also responsible for ensuring that documents are provided to personnel responsible for using the documents, or removed from distribution and use. EMS documents of a regulatory nature will be maintained by the EMR for the time period required by regulation.

4.10 Operational Control (ISO 14001 Element 4.4.6)

Detailed procedures, processes, and tools for conducting operations covered by DDOT's significant aspects/EMS focus are provided in the following chapters. As noted previously in this Document, the Environmental Management Representative, or his/her designee, is responsible for maintaining and distributing the EMS Guide. Managers in affected DDOT units are responsible for ensuring that DDOT personnel and others working on behalf of DDOT (as identified in the Guide) follow the procedures identified in the Guide. Following are overviews of the process flow and/or procedures for the significant aspects/EMS focus.

4.11 Emergency Preparedness and Response (ISO 14001 Element 4.4.7)

With respect to Project Development & Environmental Review, projects may be planned and implemented in response to emergency situations. These situations arise from natural (e.g., floods or storms) or manmade events not under the control of DDOT. In these circumstances processes have already been established to expedite project planning and implementation, and agency coordination. The procedures to be followed in these situations are recognized in this EMS Guide and presented in detail in DDOT's Environmental Process Manual. The Environmental Management Representative (EMR), Program Managers, and (in later stages of transportation projects) the Project Manager or their designees, are responsible for ensuring that these planning and coordination procedures are followed.

In the event of emergency situations or accidents during project construction or maintenance, plans and actions identified in the course of project planning and design address the actions to be taken in the event of an emergency. These plans and actions are captured in project documents and recognized in this EMS Guide. The Project Manager, or his/her designee, is

responsible for ensuring that these actions are implemented. In the event of an emergency situation or accident, the Project Manager, or designee, is responsible for notifying (within one day of the incident) the EMR of the emergency situation or accident, and the response actions taken. The EMR and the Project Manager, or designees, are responsible for reviewing the incident cause and response actions to identify and implement actions that may prevent recurrence or improve personnel response to the incident.

With respect to the TPPA office operations, a review indicates that this aspect/EMS focus does not present a potential for emergency situations or potential accidents.

4.12 Monitoring and Measurement (ISO 14001 Element 4.5.1)

Procedures, processes (including schedules), and tools to evaluate DDOT's performance in meetings its EMS objectives, measures, and targets are given in later chapters of this Document. These procedures identify the personnel responsible for conducting and collecting information to support performance monitoring. Templates are provided in Appendices to collect this information.

The Environmental Management Representative, or his/her designee, is responsible for collating performance monitoring information submitted by designated personnel and providing this information to DDOT senior management. Refer to Section 4.17 for additional details on senior management review.

4.13 Evaluation of Compliance (ISO 14001 Element 4.5.2)

Procedures, processes (including schedules), and tools to evaluate DDOT's compliance with its EMS-related legal and other requirements are presented in later chapters. These procedures identify the personnel who are responsible for compliance monitoring. These procedures identify the personnel responsible for conducting and collecting information to support compliance evaluations.

The Environmental Management Representative, or his/her designee, is responsible for collating compliance evaluation information submitted by designated personnel and providing this information to the Project Manager and, in summary form, to DDOT senior management.

4.14 Nonconformity, Corrective Action, and Preventive Action (ISO 14001 Element 4.5.3)

EMS-related nonconformities may be identified through various means, including:

- Performance monitoring evaluations,
- Compliance evaluations,
- Emergency response actions,
- Internal audits,
- Reports from DDOT personnel, and

- Reports from regulators and DDOT stakeholders.

The Environmental Management Representative (EMR) and the Project Manager, or their designees, are responsible for periodically (annually or more frequently based on the nature of the nonconformity) evaluating EMS-related nonconformities to identify corrective and preventive actions, and to designate the personnel and schedule for these actions. The Project Manager, or his/her designee, is responsible for ensuring that corrective and preventive actions are implemented. The EMR is responsible for maintaining a log of the nonconformities and the associated corrective and preventive actions. This log can be used as a reference in evaluating previous decisions to determine if further corrective and/or preventive actions are needed.

4.15 Control of Records (ISO 14001 Element 4.5.4)

EMS-related records include:

- Results of performance monitoring and compliance evaluations,
- Nonconformity reviews,
- Corrective and preventive action determinations,
- Reports on emergency incidents,
- Summary of response actions taken to emergency incidents,
- Summary of external inquiries and the associated responses,
- Internal audit results,
- Presentations and communications to senior management, and
- Decisions and directions provided by senior management in the course of EMS reviews.

Records of project environmental reviews, approvals, and determinations are maintained by the Program Manager in project files. The Environmental Management Representative, or his/her designee, is responsible for maintaining, retrieving (as needed to facilitate and enhance EMS efforts), and disposing of EMS records. Easy traceability and access is incumbent with the responsibility for retrieval. These records may be maintained in electronic or paper format. The retention time for EMS records is two years unless otherwise required by law, or DDOT policy or directive.

4.16 Internal audit (ISO 14001 Element 4.5.5)

The Environmental Management Representative (EMR), with the as-requested support of other DDOT personnel, is responsible for conducting periodic (at least annual) reviews of DDOT's EMS activities. These reviews are conducted to determine whether EMS procedures and practices are being implemented and maintained as required by this Document. The EMR is responsible for providing the results of these reviews to DDOT senior management. As applicable, the results of these reviews may be included in the process to evaluate nonconformities, and identify corrective and preventive actions (refer to Section 4.14).

4.17   Management Review (ISO 14001 Element 4.6)

The Environmental Management Representative (EMR), or his/her designee, is responsible for reporting periodically (but no less than annually) on the progress and status of DDOT's EMS to Senior Management. Topics to be covered in these EMS summary reports include:

- The results of internal audits,
- Communications from external parties,
- The extent to which EMS objectives and targets have been met,
- Compliance evaluation results,
- Status of corrective and preventive actions,
- Follow-up actions from previous management reviews,
- Changing circumstances related to the DDOT's EMS, and
- Recommendations for EMS improvements.

DDOT's Senior Management reviews the status and performance of DDOT's EMS to ensure its continuing suitability, adequacy and effectiveness. The reviews performed by Senior Management include assessing opportunities for improvement and the need for changes to DDOT's EMS, including the Environmental Policy and EMS objectives and targets. Records of the presentations and reviews are maintained by the EMR in accordance with the requirements of Section 4.15.

5.0 RECORDS

Records produced from this procedure shall be managed in accordance with the requirements identified in Section 4.15.

6.0 DOCUMENT CONTROL

This Document shall be controlled in accordance with the requirements identified in Section 4.9.

7.0 CHANGE/REVISION HISTORY

Version	Description of Change	Date	Approved By
0	New Document	March, 2010	Faisal Hameed

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4. Project Development & Environmental Review

4. Project Development & Environmental Review

This Chapter presents the procedures, processes, and support tools to implement DDOT's Environmental Management System (EMS) for Project Development and Environmental Review. This EMS focus is part of DDOT's overall process for planning, developing, and completing transportation projects (called project development process). These projects include major transportation construction and reconstruction projects such as bridge reconstruction and rehabilitation, roadway reconstruction, and transit projects, as well as maintenance of the District's transportation infrastructure. This chapter is focused on implementing the EMS on Project Development and Environmental Review. This chapter is structured to follow the ISO 14001 format so that all elements of the ISO 14001 could be addressed. This chapter consists of the following sections:

1. Purpose
2. Scope
3. Definitions
4. Environmental Management System
    4.1. General
    4.2. Environmental Policy
    4.3. Planning
    4.4. Implementation and Operation
    4.5. Checking
    4.6. Management Review

1. PURPOSE:

The purpose of the EMS is to develop a management system that ensures environmental considerations are included in the DDOT Project Development process such that all DDOT projects undergo the required environmental review and other requirements.

2. SCOPE:

The scope of this chapter and the EMS described herein apply to DDOT's Project Development & Environmental Review process for planning, designing, constructing, and maintaining transportation projects.

3. DEFINITIONS:

The definitions for the terms used in this document are provided in the Glossary section.

4. ENVIRONMENTAL MANAGEMENT SYSTEM:

This environmental management system is focused on DDOT Project Development and Environmental Review.

4.1 General:

DDOT's EMS, as described in this document, is based upon the elements and criteria of the ISO 14001:2004 Environmental Management Systems Standard. The EMS at DDOT is being implemented so that a management system can be developed and implemented that ensures environmental considerations are included in all DDOT projects. Through this document DDOT is establishing, documenting, implementing, and starting the maintenance of an environmental management system that will be monitored and evaluated for continual improvements.
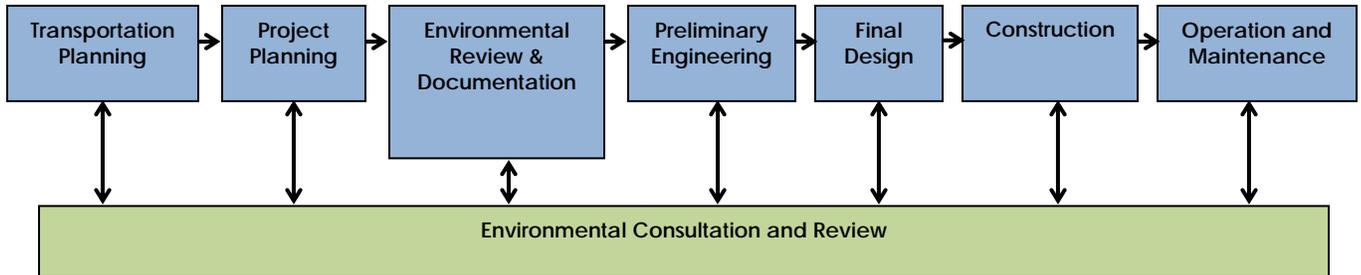
4.2 Environmental Policy:

DDOT's Environmental Policy is provided in Chapter 2: DDOT Environmental Policy and in the appendices.

4.3 Planning

4.3.1. Environmental Aspects:

Project Development and Environmental Review is one of the most important environmental aspects of DDOT. DDOT develops a number of projects every year such as bridge reconstruction, bridge rehabilitation, roadway reconstruction, and transit projects. The project development process includes planning, environmental clearance, design, and construction. The use of EMS on the Project Development and Environmental Review activities supports efforts to ensure fulfillment of environmental commitments and requirements.

Periodic reviews and revisions as necessary, of the environmental issues and opportunities will be performed by the Environmental Management Representative (EMR), or his/her designee. These reviews will occur annually or more frequently if deemed necessary by DDOT senior management. The EMR, or designee, may be assisted in this effort by an EMS review panel comprised of representatives from various DDOT administrations. The periodic reviews will also incorporate decisions and directions resulting from Management Review. The figure given below shows the project development and environmental review process.

Transportation Planning	Project Planning	Environmental Review & Documentation	Preliminary Engineering	Final Design	Construction	Operation and Maintenance

Environmental Consultation and Review

4.3.2. Legal and other Requirements

DDOT utilizes federal funds on majority of its projects. In addition several DDOT projects need approvals or permits from federal agencies. This requires DDOT to comply with various federal laws in addition to local laws. The Project Development & Environmental Review process at DDOT is based upon various federal and local laws and requirements which include the National Environmental Policy Act (NEPA), District of Columbia Environmental Policy Act (DCEPA), Civil Rights Act, Clean Water Act, and many other laws and regulatory reviews. Compliance with these laws and regulatory reviews must be fulfilled prior to project design, construction, and operation.

4.3.3. Objectives, Measures, Targets, and Programs

This section presents information to facilitate DDOT's assessment of its performance in fulfilling the practices set forth in this Procedure. The EMR, or his/her designee, periodically will collect information for management. Objectives, measures, and targets are given in Table 4.1. This table includes a review schedule for the targets and information on the relevance of each objective to this EMS focus and DDOT's environmental goals.

Table 4.1: OVERALL EMS PERFORMANCE

Objective	Measure	Target	Relevance
Incorporate Environmental features in transportation projects	1. Number of environmental projects 2. Number of projects with environmental components* 3. lbs of emissions reduced 4. lbs of GHG emissions reduced 5. % Reduction in fuel consumption 6. % increase in usable green/open space	1. At least one project annually 2. At least 50% projects annually 3. 5% annual decrease 4. 5% annual decrease 5. 1% annual decrease 6. 0.3% annual increase	Demonstrates DDOT's efforts to protect the environment, reduce pollution, and develop projects in a sustainable manner. * environmental components include: landscaping, tree planting, LID, BMP, etc.
Increase use of environmentally beneficial and recycled materials in projects	1. % of material recovered and reused/recycled 2. % of environmentally beneficial materials used	1. 2% annual increase 2. 2% annual increase	Promotes sustainability, Reduces resource consumption and waste generation.
Identify environmental requirements for new projects in a timely manner	• % of Evaluation Form reviews and concurrences completed	• 100% annually	Timely completion of documents and, in turn, timely, cost-effective completion of projects.
Avoid rework and delays due to unidentified environmental & other issues and changes in projects and documents	1. Number of projects in which additional time is spent in revising documents and submittals. 2. Time spent in additional revisions and delays 3. Delay in number of days	1. Less than 10% of projects 2. Less than 40 man hours per project 3. Less than 10 days of delay	Applies to projects in all phases. Coordination within DDOT and with agencies and comprehensive evaluation of environmental needs lead to cost and schedule control.
Avoid delays in obtaining permits and approvals	• % of projects in which permits are available at start of construction	• 100% annually	Leads to cost and schedule control.
Fulfill environmental commitments and requirements	• % of projects in which commitments are fulfilled as identified in environmental, design, and construction documents	• 100% annually	Provides effective relationships with agencies and the public and, in turn, timely reviews and approvals.

4. 4. Implementation and Operations:

4.4.1 Resources, Roles, Responsibility, and Authority:

As the "specific management representative" designated to manage, coordinate, and direct Department-wide EMS activities, the Environmental Management Representative (EMR) is responsible for: "Ensuring that an environmental management system is established, implemented and maintained in accordance with this international standard", and "Reporting to top management on the performance of the environmental management system for review, including recommendations for improvement." Table 4.2 provides the roles, responsibilities, and authority for this EMS. DDOT Senior Management is responsible for ensuring that within the fiscal constraints of budgetary processes, resources are made available to fulfill DDOT's environmental goals and objectives of this EMS.

Table 4.2: Roles, Responsibility, & Authority

Objective	Roles	Responsibility	Authority
Incorporate Environmental features in transportation projects	• Project Managers • Project Team • Environmental Staff • EMR	• Project Managers	Project Manager
Increase use of environmentally beneficial and recycled materials in projects	• Project Managers • Project Team • Environmental Staff • EMR	• Project Managers	Project Manager
Identify environmental requirements for new projects in a timely manner	• Project Managers • Project Team • Environmental Staff	• Project Managers • Environmental Staff	Environmental Staff
Avoid rework and delays due to unidentified environmental & other issues and changes in projects and documents	• Project Managers • Project Team • Environmental Staff	• Project Managers • Project Team • Environmental Staff	Environmental Staff
Avoid delays in obtaining permits and approvals	• Project Managers • Environmental Staff	• Project Managers • Environmental Staff	Project Manager.
Fulfill environmental commitments and requirements	• Project Managers • Environmental Staff • EMR	• Project Managers • Environmental Staff	Environmental Staff.

The actions, responsible person, schedules, and tools are identified in the following tables:

Transportation Planning			
Action	**Responsibility**	**Schedule**	**Tool/Guidance**
Inform TPPA Environmental Staff of potential project and submit environmental form (including routine maintenance or construction efforts).	Project or Program Manager (PM)	When potential projects are first discussed for inclusion in CLRP, STIP/TIP.	Record includes brief description of project. Env. Staff may also request information.
Review environmental form to identify environmental issues, including: • Environmental requirements (NEPA, DCEPA, Sec 106, Air Conformity, etc) • Permit requirements (sec 404, sec 402, etc). Return determination to PM.	Environmental Staff	Perform review within 4 weeks of notification.	Env staff reviews information and meets with the PM if needed. Env staff makes env determination and returns approved env forms to PM . Maintain record of review.

Project Planning			
Action	**Responsibility**	**Schedule**	**Tool/Guidance**
Meet with Environmental Staff to review new projects and develop preliminary determination of type of environmental documents and coordination required.	Project or Program Manager	During first quarter of Fiscal Year	Meeting between Project Manager and Environmental staff to review scope, location, and nearby features to assess requirements
If needed, conduct field review with Environmental staff	Project or Program Manager	During or after the meeting.	Conduct field reivew.
Prepare Part I of the Environmental Evaluation Form and submit to Env. Staff. This Form applies to all Federal and Local Projects.	Project or Program Manager	Within 1 week of above meeting.	Env. Saff may assist in preparing the Form (Green Sheet).
Review Part I of the Env. Eval. Form (Form I), provide comment or questions (as applicable), prepare Form II and return concurrence copy of the Form I & II to Project /Program Manager. Approve the project in FMIS (if Federal Aid).	Environmental Staff	Return concurrence copy (Form I & II) within 2 weeks of submittal or receipt of requested information.	Ensure accuracy and completeness. Use electronic signatures in FMIS to approve.

Project Development & Environmental Documents			
Action	**Responsibility**	**Schedule**	**Tool/Guidance**
Begin environmental document. ‣ Develop SOW for consultant.	Project Manager & Env. Staff	Upon authorization and per schedule.	Refer to the information in the Env. Eval. Form and FHWA guidance.
Help with SOW and preparing document.	Env. Staff	As requested by PM.	Consider similar projects, and refer to the information in the Env. Eval. Form.
Contact review agencies; identify the need for review, coordination, and/or approval.	PM	Within 2 weeks of beginning document.	Refer to determinations in the Eval. Form. Includes SHPO, NPS, and USACE.
Begin: • Preparation of environmental document, • Follow the process in the DDOT Environmental Manual for EA, EIS, Cat Ex and other documents (sec 106, sec 4f, etc).	Project Manager, and assigned staff	Within two weeks of contract award, or as needed for project schedule.	Refer to approved Eval. Form. Use the process defined in the DDOT Environmental Manual for EA, EIS, Cat Ex and other documents. Coordinate with Env. Staff.
Complete the environmental documents.	Project Manager	Within one year for an EA, 18 months for an EIS, and 3 months for a detailed documented Cat Ex.	Follow the process in DDOT Environmental Manual for EA, EIS, Cat Ex and other documents (sec 106, sec 4f, etc).
Review and approve documents (EA, EIS, CatEx), and Section 106, 4(f), and 404 evaluations, and other documentation before submittal to Counsel, DDOT Director, FHWA	Env. Staff	EIS - within four weeks. EA, and others – within two weeks.	Review and provide comments.
If not previously completed, complete Section 106 and 4(f) evaluations/determinations.	Project Manager	Prior to 65% design review.	Env. Staff support may be requested in Agency contacts and coordination.

Preliminary Engineering

Action	Responsibility	Schedule	Tool/Guidance
Receive copy of the Environmental Form I & II from planning PM if the project has undergone a planning study.	Project Manager	Upon authorization and per schedule.	By contacting the relevant PM or environmental staff.
Receive copy of the Environmental Form I & II and Environmental Clearance document (ROD, FONSI, Cat Ex) from PM if the project has undergone a environmental documentation.	Project Manager	Upon authorization and per schedule.	By contacting the relevant PM or environmental staff..
Prepare Part I of the Environmental Evaluation Form and submit to Env. Staff. This Form applies to all Federal and Local Projects.	Project or Program Manager	Before submitting obligation request.	By completing the Environmental Form.
Review Part I of the Env. Eval. Form (Form I), provide comment or questions (as applicable), prepare Form II and return concurrence copy of the Form I & II to Project /Program Manager. Approve the project in FMIS (if Federal Aid).	Environmental Staff	Return concurrence copy (Form I & II) within 2 weeks of submittal or receipt of requested information.	Ensure accuracy and completeness. Use electronic signatures in FMIS to approve.
If not previously completed, complete Section 106 and 4(f) evaluations/determinations.	Project Manager	Prior to 65% design review.	Env. Staff support may be requested in Agency contacts and coordination.
Ensure the commitments and requirements in Form II, FONSI/ROD/Cat Ex or any other environmental documents are met in the Preliminary Engineering.	Environmental Staff	Return concurrence copy (Form I & II) within 2 weeks of submittal or receipt of requested information.	Ensure accuracy and completeness. Use electronic signatures in FMIS to approve.

Final Design

Action	Responsibility	Schedule	Tool/Guidance
Receive copy of the Environmental Form I & II from planning or PE PM if the project has undergone a planning study or PE.	Project Manager	Upon authorization and per schedule.	By contacting the relevant PM or environmental staff.
Receive copy of the Environmental Form I & II and Environmental Clearance document (ROD, FONSI, Cat Ex) from PM if the project has undergone a environmental documentation.	Project Manager	Upon authorization and per schedule.	By contacting the relevant PM or environmental staff..
Prepare Part I of the Environmental Evaluation Form and submit to Env. Staff. This Form applies to all Federal and Local Projects.	Project or Program Manager	Before submitting obligation request.	By completing the Environmental Form.
Review Part I of the Env. Eval. Form (Form I), provide comment or questions (as applicable), prepare Form II and return concurrence copy of the Form I & II to Project /Program Manager. Approve the project in FMIS (if Federal Aid).	Environmental Staff	Return concurrence copy (Form I & II) within 2 weeks of submittal or receipt of requested information.	Ensure accuracy and completeness. Use electronic signatures in FMIS to approve.
Obtain permits (sec 404, 402, etc). Coordinate and develop MOT and utility relocation plans. Develop Environmental Management Plan for major projects.	Project Manager	Permits at 100% design. MOT & utility coordination prior to 65% design review.	Env. Staff support may be requested in Agency contacts and coordination.
Ensure the commitments and requirements in Form II, FONSI/ROD/Cat Ex or any other environmental documents are met in the Final Design.	Environmental Staff	Return concurrence copy (Form I & II) within 2 weeks of submittal.	Ensure accuracy and completeness.

Construction & Maintenance			
Action	**Responsibility**	**Schedule**	**Tool/Guidance**
Receive copy of the Environmental Form I & II and Environmental Clearance document (ROD, FONSI, Cat Ex) from the design PM	Project Manager	Upon authorization and per schedule.	By contacting the relevant PM or environmental staff.
Ensure permits (sec 404, 402, etc) are obtained.	Project Manager	Before construction start.	By contacting the relevant PM
Ensure the commitments and requirements in Form II, FONSI/ROD/Cat Ex or any other environmental documents are met in the Construction.	Project Manager & Env Staff	During construction	By conducting field reviews. By conducting periodic checks (audits).
Identify corrective actions if required	Project Manager & Env Staff	During construction	By reviewing the problem. By coordinating with relevant agencies and people.

4.4.2 Competence, Training, and Awareness:

DDOT's EMS Training Program is presented below. Key elements of DDOT's EMS-related training include:

- The importance of conformance to DDOT's Environmental Policy, and to the procedures and requirements of DDOT's EMS;
- The significant environmental impacts (actual or potential) of their work activities and the environmental benefits of improved personal environmental performance;
- Their roles and responsibilities in achieving conformance with the Environmental Policy, with the procedures and requirements of DDOT's EMS, and with EMS-related emergency preparedness and emergency response requirements; and
- The potential consequences of departure from specified operating procedures.

The Environmental Management Representative (EMR), or his/her designee, is responsible for ensuring that EMS-related training needs have been identified for personnel working for or on behalf of DDOT. In the event of changes to DDOT's EMS or the operational controls (i.e., procedures) for implementing the EMS, the EMR is responsible for ensuring that training is revised as necessary to reflect these changes – the EMR may be assisted in this effort by staff involved in developing and presenting the training. The EMR is also responsible for ensuring that this training has been provided in accordance with the training program. DDOT Senior Management will assure that sufficient support and resources are available to the EMR or personnel identified in the training program to provide EMS-related training. A training

program will be set up to facilitate implementation of this Procedure. Elements of this training program shall include:

- Training materials describing activities, requirements, responsibilities, and support information for each step and action;
- The personnel who receive the training; and,
- The schedule for initial and refresher training.

Training Requirements Matrix

Position	EMS Awareness (initial)	EMS Awareness (annual refresher)	EMS Implementation Guide	NEPA	Section 106	Section 4(f)	Sections 402, 404	DDOT Environmental Policy and Process
Project Managers	X	X	X	X	X	X	X	X
Engineers	X	X	X	X	X	X	X	X
Planners	X	X	X	X	X	X	X	X
Construction Inspectors, Engineering Technicians	X	X						
Environmental Program Coordinator, Environmental Staff	X	X	X	X	X	X	X	X
Contractor Managers and Supervisors	X							

Note: The above training is provided annually. New hires or newly appointed DDOT personnel shall attend the training indicated for the position. EMR is responsible for providing (arranging) these trainings.

4.4.3 Communication:

Internal and external communication related to Environmental reviews and support is focused on the Ward-based transportation project teams. The Environmental Management Representative (EMR), or his/her designee, is responsible for coordinating internal EMS-related

communications. DDOT's EMS internal communications are used to ensure that employees are aware of the following:

- The Environmental Policy;
- DDOT's EMS focus and the importance of conformance with its associated procedures and policies;
- EMS responsibilities and EMS guidance related to their job activities; and,
- EMS procedures, processes, and tools associated with their work activities.

External EMS communications can be proactive or responsive. Proactive EMS communications are coordinated with and released through the Communications Office in the Director's Office. The EMR maintains a summary of the EMS-related inquiry and response (including dates and contacts). EMS related information will also be maintained at DDOT website.

4.4.4. Documentation :

DDOT's EMS documentation includes:

- DDOT's Environmental Policy
- The scope of the EMS
- The main elements of the EMS
- Documents and records (including forms & checklists) that will be collected and documented to ensure the effective implementation and operation of the EMS.

4.4.5. Control of Documents:

The Environmental Management Representative (EMR), or his/her designee is responsible for ensuring that EMS-related documents are approved, created, distributed, maintained, reviewed, revised, and disposed. EMS documents include: the Environmental Policy, this EMS Manual. The EMR (or designee) is also responsible for maintaining an index and a repository (electronic or on paper) of EMS-related documents.

4.4.6. Operational Control:

A number of operational controls have been developed for the DDOT EMS. These operational controls, processes, and tools for conducting operations provided in the section 4.4.1 of this chapter. As noted previously in this Document, the Environmental Management Representative, or his/her designee, is responsible for maintaining and distributing this document. Managers in affected DDOT units are responsible for ensuring that DDOT personnel and others working on behalf of DDOT follow the procedures identified. The operational controls are provided in the different tables provided in section 4.4.1 at all locations where the Environmental Staff has been identified as responsible. Operational controls are all provided by the Environmental Forms I & II and Checklists which are provided in Appendix A.

4.4.7 Emergency Preparedness and Response:

In emergency situations most of the procedures listed in the preceding sections can be either expedited based on the emergency situation reduced as described in federal (23 CFR 771) and local regulations. These situations can arise from natural (e.g., floods or storms) or manmade events not under the control of DDOT. In emergency situations DDOT will ensure that the actions taken in the emergency event either do not result in adverse environmental impacts or these impacts are mitigated and minimized once the emergency situation is over. The Environmental Management Representative (EMR), Ward Team Program Manager, and (in later stages of transportation projects) the Project Manager or their designees, are responsible for ensuring that these procedures are followed.

4.5. Checking:

4.5.1 Monitoring and Measurement:

Monitoring and Measurement procedures, processes (including schedules), and tools to evaluate DDOT's performance in meetings its EMS are included in section 4.3.3 and section 4.4.1. These procedures also identify the personnel responsible for conducting and collecting information to support performance monitoring.

The Environmental Management Representative, or his/her designee, is responsible for collating performance monitoring information submitted by designated personnel and providing this information to DDOT senior management. The EMR will monitor and measure EMS performance based on the Table 4.1 and 4.2 at least annually. Table 4.3 can be used for this purpose.

Table 4.3. OVERALL PERFORMANCE MONITORING & MEASUREMENT

Objective	Measure	Target	Observation	Corrective Action
Incorporate Environmental features in transportation projects	1. Number of environmental projects 2. Number of projects with environmental components* 3. lbs of emissions reduced 4. lbs of GHG emissions reduced 5. % Reduction in fuel consumption 6. % increase in usable green/open space	1. At least one project annually 2. At least 50% projects annually 3. 5% annual decrease 4. 5% annual decrease 5. 1% annual decrease 6. 0.3% annual increase		
Increase use of environmentally beneficial and recycled materials in projects	1. % of material recovered and reused/recycled 2. % of environmentally beneficial materials used	1. 2% annual increase 2. 2% annual increase		
Identify environmental requirements for new projects in a timely manner	• % of Evaluation Form reviews and concurrences completed	• 100% annually		
Avoid rework and delays due to unidentified environmental & other issues and changes in projects and documents	1. % of projects in which additional time is spent in revising documents 2. Time spent in additional revisions and delays 3. Delay in number of days	1. Less than 10% of projects 2. Less than 40 man hours per project 3. Less than 10 days of delay		
Avoid delays in obtaining permits and approvals	• % of projects in which permits are available at start of construction	• 100% annually		
Fulfill environmental commitments and requirements	• % of projects in which commitments are fulfilled	• 100% annually		

4.5.2. Evaluation of Compliance:

Procedures, processes (including schedules), and tools to evaluate DDOT's compliance with its EMS-related legal and other requirements are presented in the section 4.3.3 of this document. These procedures identify the personnel who are responsible for compliance monitoring. These procedures identify the personnel responsible for conducting and collecting information to support compliance evaluations.

The Environmental Management Representative, or his/her designee, is responsible for collating compliance evaluation information submitted by designated personnel and providing this information to the Project Manager and, in summary form, to DDOT senior management.

4.5.3. Nonconformity, Corrective Action, and Preventive Actions:

EMS-related nonconformities may be identified through various means, including:

- Performance monitoring evaluations,
- Compliance evaluations,
- Emergency response actions,
- Internal audits,
- Reports from DDOT personnel, and
- Reports from regulators and DDOT stakeholders.

The Environmental Management Representative (EMR) and the Project Manager, or their designees, are responsible for periodically (annually or more frequently based on the nature of the nonconformity) evaluating EMS-related nonconformities to identify corrective and preventive actions, and to designate the personnel and schedule for these actions. The Project Manager, or his/her designee, is responsible for ensuring that corrective and preventive actions are implemented. The EMR is responsible for maintaining a log of the nonconformities and the associated corrective and preventive actions. This log can be used as a reference in evaluating previous decisions to determine if further corrective and/or preventive actions are needed.

4.5.4 Control of Records:

EMS-related records include:

- Results of performance monitoring and compliance evaluations,
- Nonconformity reviews,
- Corrective and preventive action determinations,
- Reports on emergency incidents,
- Summary of response actions taken to emergency incidents,
- Summary of external inquiries and the associated responses,
- Internal audit results,
- Presentations and communications to senior management, and
- Decisions and directions provided by senior management in the course of EMS reviews.

Records of project environmental reviews, approvals, and determinations are maintained by the Program Manager in project files.

The Environmental Management Representative, or his/her designee, is responsible for maintaining, retrieving (as needed to facilitate and enhance EMS efforts), and disposing of EMS records. Easy traceability and access is incumbent with the responsibility for retrieval. These records may be maintained in electronic or paper format. The retention time for EMS records is two years unless otherwise required by law, or DDOT policy or directive.

4.5.5. Internal Audit:

The Environmental Management Representative (EMR), with the as-requested support of other DDOT personnel, is responsible for conducting periodic (at least annual) reviews of DDOT's EMS activities. These reviews are conducted to determine whether EMS procedures and practices are being implemented and maintained as described by this EMS Document. The EMR is responsible for providing the results of these reviews to DDOT senior management. As applicable, the results of these reviews may be included in the process to evaluate nonconformities, and identify corrective and preventive actions.

4.6. Management Review:

The Environmental Management Representative (EMR), or his/her designee, is responsible for reporting periodically (but no less than annually) on the progress and status of DDOT's EMS to Senior Management. Topics to be covered in these EMS summary reports include:

- The results of internal audits,
- Communications from external parties,
- The extent to which EMS objectives and targets have been met,
- Compliance evaluation results,
- Status of corrective and preventive actions,
- Follow-up actions from previous management reviews,
- Changing circumstances related to the DDOT's EMS, and
- Recommendations for EMS improvements.

DDOT's Senior Management will review the status and performance of DDOT's EMS to ensure its continuing suitability, adequacy and effectiveness. The reviews performed by Senior Management include assessing opportunities for improvement and the need for changes to DDOT's EMS, including the Environmental Policy and EMS objectives and targets.

Table 4.4 OVERALL PERFORMANCE REPORT

Measure	Target	Time Saving	Cost Saving	Emission Reductions	Carbon footprint Reduction
1. Number of environmental projects 2. Number of projects with environmental components* 3. lbs of emissions reduced 4. lbs of GHG emissions reduced 5. % Reduction in fuel consumption 6. % increase in usable green/open space	1. At least one project annually 2. At least 50% projects annually 3. 5% annual decrease 4. 5% annual decrease 5. 1% annual decrease 6. 0.3% annual increase				
1. % of material recovered and reused/recycled 2. % of environmentally beneficial materials used	1. 2% annual increase 2. 2% annual increase				
• % of Evaluation Form reviews and concurrences completed	• 100% annually				
1. % of projects in which additional time is spent in revising documents and submittals. 2. Time spent in additional revisions and delays 3. Delay in number of days	1. Less than 10% of projects 2. Less than 40 man hours per project 3. Less than 10 days of delay				
• % of projects in which permits are available at start of construction	• 100% annually				
• % of projects in which commitments are fulfilled	• 100% annually				
Total					

- 34 -

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5. Office Operations

5. Office Operations

This Chapter presents the procedures and support tools to implement DDOT's Environmental Management System (EMS) to conserve resources in the conduct of office operations at DDOT. In the first phase of EMS, this will be implemented only in the Transportation Policy & Planning Administration (TPPA) of DDOT. Afterwards, based on the DDOT leadership decision it can be implemented in all administrations and offices of DDOT. Chapter 3: EMS Structure & Approach provides the information on all aspects of the DDOT EMS. In this chapter the focus is on implementing the EMS on Office Operations. A template for preparing the final report is provided in Appendix C. This chapter is structured to follow the ISO 14001 format so that all elements of the ISO 14001 could be addressed. This chapter consists of the following sections:

1. Purpose
2. Scope
3. Definitions
4. Environmental Management System
   4.1. General
   4.2. Environmental Policy
   4.3. Planning
   4.4. Implementation and Operation
   4.5. Checking
   4.6. Management Review

1. Purpose:

The purpose of the EMS is to develop a management system that ensures environmental considerations are included in all DDOT Office Operations such that these operations also comply with the required laws and other requirements.

2. Scope:

The scope of this chapter and the EMS described herein apply to DDOT Office Operations. However, in the first phase the scope is limited to TPPA office operations.

3. Definitions:

The definitions for the terms used in this document are provided in the Glossary section.

4. Environmental Management System

This environmental management system is focused on DDOT Office Operations.

4.1 General:

DDOT's EMS, as described in this document, is based upon the elements and criteria of the ISO 14001:2004 Environmental Management Systems Standard. The EMS at DDOT is being implemented so that a management system can be developed and implemented that ensures environmental considerations are included in all DDOT Office Operations such that these operations also comply with the required laws and other requirements. Through this document DDOT is establishing, documenting, implementing, and starting the maintenance of an environmental management system that will be monitored and evaluated for continual improvements. DDOT will continue to use the existing DC Office of Property Management (OPM) recycling policies regarding wastes in the buildings.

4.2 Environmental Policy:

DDOT's Environmental Policy is provided in Chapter 2: DDOT Environmental Policy and in the appendices.

4.3 Planning

4.3.1 Environmental Aspects:

Office Operations within DDOT is one of the most important environmental aspects of DDOT. These office operations include printing, purchasing office supplies, computer use, and energy use. Periodic reviews and revisions as necessary, of the environmental issues and opportunities will be performed by the Environmental Management Representative (EMR), or his/her designee. These reviews will occur annually or more frequently if deemed necessary by DDOT senior management. The EMR, or designee, may be assisted in this effort by an EMS review panel comprised of representatives from various DDOT administrations. The periodic reviews will also incorporate decisions and directions resulting from Management Review.

4.3.2. Legal and other Requirements

DDOT utilizes federal funds on majority of its projects. This requires DDOT to comply with various federal laws in addition to local laws. In addition the DDOT and DC Government have a commitment to making its operations more environmentally sustainable.

4.3.3. Objectives, Measures, Targets, and Programs

This section presents information to facilitate DDOT's assessment of its performance in fulfilling the practices set forth in this Procedure. The Environmental Management Representative, or his/her designee, periodically will collect information for management and DDOT Senior Management review. Table 5.1 identifies objectives, measures, and targets have been developed to assess and demonstrate DDOT's progress in fulfilling its Office Operations EMS commitments.

Table 5.1: Office Operations Objectives, Measures, Targets

Objective	Measure	Target
Save Energy	• Number & percentage of lights, PCs turned off • Power savings associated with equipment turned off • Carbon emissions associated with power savings	• 100% off (based on periodic after-hours). • Reduce 5% power use annually. • Reduce 1% carbon emissions
Conserve Resources	• Quantity of paper. • Quantity of office supplies (toners, folders, pens, etc) • Quantity of new electronic equipment	• Reduce paper use by 5% every year • Reduce supply use by 5% every year • Reduce the number of individual printers
Recycle	• % recycled content • Number of recycled product	Increase the recycled content of paper from 30% Increase the use of recycled products by 5%.
Alternative Modes of Travel	Number of work related trips.	70% of trips.
Environmentally Sustainable Products	• Number of energy-save products • Number of green products	• 100% printers, PCs and laptops should be energy star rated. • 20% of all office products should be green

* Note: All targets should be revised annually.

4. 4. Implementation and Operations:

4.4.1 Resources, Roles, Responsibility, and Authority:

As the "specific management representative" designated to manage, coordinate, and direct Department-wide EMS activities, the Environmental Management Representative (EMR) is responsible for: "Ensuring that an environmental management system is established, implemented and maintained in accordance with this international standard", and "Reporting to top management on the performance of the environmental management system for review, including recommendations for improvement". Table 5.2 provides the roles, responsibilities, and authority for this EMS. DDOT Senior Management is responsible for ensuring that within the fiscal constraints of budgetary processes, resources are made available to fulfill DDOT's environmental goals and objectives of this EMS.

4.4.2   Competence, Training, and Awareness:

The EMR (or his/her designee) will develop competence and provide Training and awareness to the staff members through routine, frequent communications. Communications and training materials include, but are not limited to:

- General distribution e-mails
- Brochures/flyers
- Posters and handouts
- E-mails presenting performance surveys and results.

Training Frequency – The EMR, or his/her designee, will provide training for employees at least annually. This training will include:

- Reminders to follow existing Office Operations EMS practices and responsibilities,
- New or additional Office Operations EMS practices and responsibilities,
- A review of Office operations EMS achievements, and
- Actions needed to maintain or improve performance.

To ensure consistency in practice and adherence on a day-to-day basis, communications must be varied and the message kept "fresh." New communications will be provided to all concerned employees on at least annually.

Records of all training (including attendance rosters, dates, and training materials) and communications are to be retained by the EMR.

Table 5.2: Roles, Responsibilities, & Authority

Resource	Roles	Responsibility & Authority
Energy	▪ Turn off desk light at the end of the day. ▪ Turn off light when leaving during the day for long period of time. ▪ Enable the sleep mode on PCs, monitors, copiers, printers. ▪ Turn off/Shutdown PC at the end of the day	▪ All Staff members are responsible for turning off their lights, PC, etc. ▪ EMR or designee will monitor/provide periodic checks.
Office Supplies & Other Resources	▪ Use double sided printing ▪ Reduce printing ▪ Reduce color printing ▪ Reduce number of new electronic equipment ▪ Reduce use of office supplies (toners, folders, pens, etc)	▪ All Staff members are responsible for reducing use of resources. ▪ EMR or designee will monitor/provide periodic checks. ▪ EMR or designee will work with Operations manager/administrative staff to ensure reduction in supplies, resources, and equipment.
Recycling	▪ Increase use of recycled content ▪ Increase use of recycled product ▪ Increase use of recycled content/products in consultant products submitted to DDOT.	▪ All Staff members are responsible for increasing recycling. ▪ EMR or designee will monitor/provide periodic checks. ▪ EMR or designee will work with Operations manager/administrative staff to ensure increase in recycled products and recycled content
Alternative Modes of Travel	Use alternative modes of travel for work related trips.	▪ All Staff members are responsible for increasing use of alternative modes. ▪ EMR or designee will monitor/provide periodic checks.
Environmentally Sustainable Products	▪ Only buy Energy Star rated electronic office appliances ▪ Increase use of environmentally sustainable products ▪ Increase use of green products	▪ EMR or designee will monitor/provide periodic checks. ▪ EMR or designee will work with Operations manager/administrative staff to ensure increase use of environmentally sustainable products.

4.4.3 Communication:

Internal and external communication related to Office Operations EMS will be provided by already established DDOT communications mechanisms. The Environmental Management Representative (EMR), or his/her designee, is responsible for coordinating internal EMS-related communications – the EMR may be assisted in these efforts by the other members of staff. The internal communications will be used to ensure that employees are aware of the following:

- The Environmental Policy;
- Office Operations EMS focus and the importance of conformance with its associated procedures and policies;
- EMS responsibilities and EMS guidance related to their job activities; and,
- EMS procedures, processes, and tools associated with their work activities.

External EMS communications can be proactive or responsive. Proactive EMS communications are coordinated with and released through the Communications Office in the Director's Office. The EMR maintains a summary of the EMS-related inquiry and response (including dates and contacts).

4.4.4. Documentation :

Office Operations EMS documentation includes:

- DDOT's Environmental Policy
- The scope of the EMS
- The main elements of the EMS
- Documents and records (including forms & checklists) that will be collected and documented to ensure the effective implementation and operation of the EMS.

4.4.5. Control of Documents:

The Environmental Management Representative (EMR), or his/her designee is responsible for ensuring that EMS-related documents are approved, created, distributed, maintained, reviewed, revised, and disposed. EMS documents include: the Environmental Policy, this EMS Manual. The EMR (or designee) is also responsible for maintaining an index and a repository (electronic or on paper) of EMS-related documents.

4.4.6. Operational Control:

The operational controls for this EMS are given in Table 5.3.

Table 5.3: Operational Controls

Resource	Roles	Operational Control
Energy	▪ Turn off desk light at the end of the day. ▪ Turn off light when leaving during the day for long period of time. ▪ Enable the sleep mode on PCs, monitors, copiers, printers. ▪ Turn off/Shutdown PC at the end of the day	▪ EMR or designee will monitor/provide periodic checks & develops reports. ▪ Reports are distributed routinely.
Office Supplies & Other Resources	▪ Use double sided printing ▪ Reduce printing ▪ Reduce color printing ▪ Reduce number of new electronic equipment ▪ Reduce use of office supplies (toners, folders, pens, etc)	▪ EMR or designee reviews all supply orders before final order ▪ EMR or designee reviews printing reports ▪ EMR or designee provides monitoring / periodic checks
Recycling	▪ Increase use of recycled content ▪ Increase use of recycled product ▪ Increase use of recycled content/products in consultant products submitted to DDOT.	▪ EMR or designee reviews all supply orders before final order ▪ EMR or designee will monitor/provide periodic checks.
Alternative Modes of Travel	Use alternative modes of travel for work related trips.	▪ EMR or designee reviews travel trip logs ▪ EMR or designee will monitor/provide periodic checks.
Environmentally Sustainable Products	▪ Only buy Energy Star rated electronic office appliances ▪ Increase use of environmentally sustainable products ▪ Increase use of green products	▪ EMR or designee reviews all orders before final order is sent to vendor. ▪ EMR or designee will monitor/provide periodic checks.

4.4.7 Emergency Preparedness and Response:

In emergency situations most of the procedures listed in the preceding sections can be either expedited based on the emergency situation reduced. In emergency situations DDOT will ensure that the actions taken in the emergency event either do not result in adverse environmental impacts or these impacts are mitigated and minimized once the emergency situation is over. The Environmental Management Representative (EMR), or designee, is responsible for ensuring that these procedures are followed.

4.5. Checking:

4.5.1 Monitoring and Measurement:

Monitoring and Measurement procedures, processes (including schedules), and tools to evaluate DDOT"s performance in meetings its EMS are included in section 4.3.3 and section 4.4.1. These procedures also identify the personnel responsible for conducting and collecting information to support performance monitoring.

The Environmental Management Representative, or his/her designee, is responsible for collating performance monitoring information submitted by designated personnel and providing this information to DDOT senior management. The EMR will monitor and measure EMS performance based on the Table 5.1, 5.2, and 5.3 at least annually. Table 5.4 can be used for this purpose.

Table 5.4: Operational Controls

EMS Performance Inspection Report			
Resource	**Action**	**Observation**	**Corrective Action**
Energy	▪ Number of desk lights turned off ▪ Number of PCs, monitors, copiers, printers on Sleep Mode. ▪ Number of PC s Turned off/Shutdown at the end of the day		
Office Supplies & Other Resources	▪ Total Number of Pages printed ▪ Reduction in printing (compared to previous inspection) ▪ Number of new electronic equipment ▪ Quantity of office supplies (toners, folders, pens, etc)		
Recycling	▪ % Recycled content used ▪ Number of recycled product ▪ % recycled content/products in consultant products submitted to DDOT.		
Alternative Modes of Travel	▪ Number of Total Trips ▪ Number of Trips using Alternate modes		
Environmentally Sustainable Products	▪ % of Energy Star rated electronic office appliances ▪ % environmentally sustainable products ▪ % green products		
Inspection Date & Time:		**Inspected By:**	

4.5.2. Evaluation of Compliance:

Procedures, processes (including schedules), and tools to evaluate DDOT's compliance with its EMS-related legal and other requirements are presented in the section 4.3.3, 4.46, and 4.5.1 of this document. These procedures identify the personnel who are responsible for compliance monitoring. These procedures identify the personnel responsible for conducting and collecting information to support compliance evaluations.

The Environmental Management Representative, or his/her designee, is responsible for collating compliance evaluation information submitted by designated personnel and providing this information to DDOT senior management.

4.5.3. Nonconformity, Corrective Action, and Preventive Actions:

EMS-related nonconformities may be identified through various means, including:

- Performance monitoring evaluations,
- Compliance evaluations,
- Emergency response actions,
- Internal audits,
- Reports from DDOT personnel, and
- Reports from regulators and DDOT stakeholders.

The Environmental Management Representative (EMR) or designee is responsible for periodically (annually or more frequently based on the nature of the nonconformity) evaluating EMS-related nonconformities to identify corrective and preventive actions, and to designate the personnel and schedule for these actions. The EMR is responsible for maintaining a log of the nonconformities and the associated corrective and preventive actions. This log can be used as a reference in evaluating previous decisions to determine if further corrective and/or preventive actions are needed.

4.5.4 Control of Records:

EMS-related records include:

- Results of performance monitoring and compliance evaluations,
- Nonconformity reviews,
- Corrective and preventive action determinations,
- Reports on emergency incidents,
- Summary of response actions taken to emergency incidents,
- Summary of external inquiries and the associated responses,
- Internal audit results,
- Presentations and communications to senior management, and

- Decisions and directions provided by senior management in the course of EMS reviews.

Records of the reviews will be maintained by EMR.

The Environmental Management Representative, or his/her designee, is responsible for maintaining, retrieving (as needed to facilitate and enhance EMS efforts), and disposing of EMS records. Easy traceability and access is incumbent with the responsibility for retrieval. These records may be maintained in electronic or paper format. The retention time for EMS records is two years unless otherwise required by law, or DDOT policy or directive.

4.5.5. Internal Audit:

The Environmental Management Representative (EMR), with the as-requested support of other DDOT personnel, is responsible for conducting periodic (at least annually) reviews of DDOT's (Office Operations) EMS activities. These reviews are conducted to determine whether EMS procedures and practices are being implemented and maintained as described by this EMS Document. The EMR is responsible for providing the results of these reviews to DDOT senior management. As applicable, the results of these reviews may be included in the process to evaluate nonconformities, and identify corrective and preventive actions.

4.6. Management Review:

The Environmental Management Representative (EMR), or his/her designee, is responsible for reporting periodically (but no less than annually) on the progress and status of DDOT's (Office Operations) EMS to Senior Management. Topics to be covered in these EMS summary reports include:

- The results of internal audits,
- Communications from external parties,
- The extent to which EMS objectives and targets have been met,
- Compliance evaluation results,
- Status of corrective and preventive actions,
- Follow-up actions from previous management reviews,
- Changing circumstances related to the DDOT's EMS, and
- Recommendations for EMS improvements.

DDOT's Senior Management will review the status and performance of DDOT's EMS to ensure its continuing suitability, adequacy and effectiveness. The reviews performed by Senior Management include assessing opportunities for improvement and the need for changes to DDOT's EMS, including the Environmental Policy and EMS objectives and targets.

Table 5.5: Operational Controls

EMS Performance Report					
Resource	**Action**	**Target**	**Savings (Resources /Energy)**	**Savings ($)**	**Carbon Footprint Reduction**
Energy	▪ Number of desk lights turned off ▪ Number of PCs, monitors, copiers, printers on Sleep Mode. ▪ Number of PC s Turned off/Shutdown at the end of the day				
Office Supplies & Other Resources	▪ Total Number of Pages printed ▪ Reduction in printing (compared to previous inspection) ▪ Number of new electronic equipment ▪ Quantity of office supplies (toners, folders, pens, etc)				
Recycling	▪ % Recycled content used ▪ Number of recycled product ▪ % recycled content/products in consultant products submitted to DDOT.				
Alternative Modes of Travel	▪ Number of Total Trips ▪ Number of Trips using Alternate modes				
Environmentally Sustainable Products	▪ % of Energy Star rated electronic office appliances ▪ % environmentally sustainable products ▪ % green products				
Total					
Inspection Date & Time:			**Inspected By:**		

6. Glossary

6. Glossary

Annual Operating Budget – The formal appropriation to fund transportation projects (and other District projects and activities).

CE or CatEx – Categorical Exclusion. Issued for actions that do not individually or cumulatively have a significant effect on the environment.

CIP – Capital Improvement Program and Capital Budget. Comprises the financing, acquisition, development and implementation of permanent improvement projects for the District's fixed assets. The CIP document is a comprehensive, annually updated, six-year plan. The CIP consists of the appropriated budget authority request for the upcoming fiscal year and projected funding/expenditure plans for the following five years.

CLRP – Constrained Long Range Plan. Identifies the capital improvements, studies, actions and strategies that the region proposes to carry out for 20-30 years.

DCEPA – District of Columbia Environmental Policy Act. Requires that all District agencies consider the environmental impact of all proposed major actions prior to issuing any approvals for such actions.

EA – Environmental Assessment. Prepared for actions in which the significance of the environmental impact is not clearly established.

EIS – Environmental Impact Statement. Prepared for projects where it is known that the action will have a significant effect on the environment.

EP Staff – Environmental Program staff. Staff or individuals within TPPA who are assigned to perform environmental reviews and provide environmental review support for transportation projects or categories of projects. Primary POC is the PM.

Environmental Management Representative (EMR) – The individual who is responsible for day-to-day oversight and implementation of DDOT's EMS. This function is fulfilled by the TPPA Environmental Program Coordinator.

FMIS – Federal Fiscal Management Information System

FONSI – Finding of No Significant Impact. Issued when environmental analysis and interagency review during the EA process finds that a project will have no significant impacts on the quality of the environment.

IPMA – DDOT's Infrastructure Project Management Administration. Responsible for the design, engineering and construction of roadways, bridges, traffic signals and alley projects in the District.

NEPA – National Environmental Policy Act. Requires Federal agencies to disclose the results of their analysis and the effects of project implementation on the environment and solicit comments on the proposals from interested and affected parties. Applies to actions and projects that receive Federal funds, including Federally funded transportation projects of DDOT.

MTA – DDOT's Mass Transit Administration. Provides the public with efficient, affordable and diverse means of travel by providing transit services, funding, policy recommendations, and coordination services to the Washington Metropolitan Area Transit Authority.

PM – Project Manager. The individual who is responsible for managing and directing a DDOT transportation project or category of projects. The PM may be assigned to any DDOT administration.

Senior Management – Includes the Director of DDOT, the Associate Director of TPPA, and, as involved in EMS implementation, the Associate Directors of other DDOT Administrations.

TOA – DDOT's Transportation Operations Administration. Maintains the integrity of public assets, such as roadways, sidewalks, traffic calming devices, streetlights, parking meters, and ensure a safe and user-friendly transportation environment

TPPA – DDOT's Transportation Policy and Planning Administration. Establishes broad strategic goals to guide multi-modal program development and the policies necessary to implement these goals, and ensures compliance with these goals and policies through plan review and permitting.

UFA – DDOT's Urban Forestry Administration. Manages and increases trees on the District's streets.

USACE – US Army Corps of Engineers

Appendix A:
- **Environmental Policy**
- **Forms, and**
- **Checklists**

Office of the Director

DDOT ENVIRONMENTAL POLICY

The District Department of Transportation is committed to practicing Environmental Excellence as it fulfills its mission to enhance the quality of life for the District of Columbia residents, businesses, and visitors by ensuring that people, goods, and information move efficiently and safely, with minimal adverse impacts on the environment.

DDOT recognizes its role as a steward of the environment and is committed to the prevention of pollution. DDOT recognizes that its activities have the potential to impact the environment and as such is committed to incorporate environmental considerations in its activities by following these objectives:

1. Using resources efficiently
2. Developing transportation projects and conducting operations in an environmentally sustainable manner.

DDOT is committed to continual improvement of its environmental processes and is committed to comply with all applicable Federal and Local environmental laws, regulations, and other requirements. DDOT is actively pursuing the development and implementation of an Environmental Management System (EMS). This EMS structure is described in the DDOT Environmental Management System Manual which includes framework to develop DDOT environmental objectives and targets.

Signed: _____   September 2, 2009

        Gabe Klein, Director

This DDOT Environmental Policy shall be documented, implemented, maintained, and communicated to everyone working for or on DDOT's behalf.

EMS CHECKLIST

Help us make DDOT Environmental Friendly by doing the following:

Save Energy	▪ Turn off your light when leaving your desk or office at the end of the day. ▪ Turn off your light when leaving during the day for long period of time. ▪ Turn off the light when leaving a conference room. ▪ Enable the sleep mode on PCs, monitors, copiers, printers. ▪ Turn off/Shut down your PC at the end of the day.
Conserve Resources	▪ Use e-mail instead of printing if possible. ▪ Use black & white printers. ▪ Print/copy only the sections needed. ▪ Use recycled content paper. ▪ Use double-sided pages. ▪ Use color only when needed and only for those pages needed. ▪ Instruct contractors to do the above when submitting documents.
Recycle	▪ Return printer and copier toner cartridges. ▪ Buy recycled content materials ▪ Increase use of recycled product ▪ Increase use of recycled content/products in consultant products submitted to DDOT.
Use alternative Modes of Travel	▪ Use alternative modes like transit, bicycle, or walk for work related activities.
Use Environmentally Sustainable Products	▪ Request/buy Energy Star Electronic Equipment ▪ Request/buy "green" products

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DISTRICT DEPARTMENT OF TRANSPORTATION

Office of the Director

MEMORANDUM

To:	All DDOT Staff
From:	Gabe Klein Acting Director
Date:	**February 24, 2009**
Subject:	**Environmental Evaluation Form for Project Funding Obligation**

The District Department of Transportation (DDOT) is required to establish policy, procedures, and processes for implementing the National Environmental Policy Act of 1970 (NEPA) (42 U.S.C. § 4321, et seq.), the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 C.F.R. § 1500 -1508), the Federal Highway Administration regulations for Environmental Impacts and Related Procedures (23 CFR 771), and the District of Columbia Environmental Policy Act of 1989 (DCEPA) and related laws, regulations, and procedures.

Procedures set up by Federal Highway Administration (FHWA) require the DDOT Environmental Office to approve all funding requests before FHWA approval. In order to ensure compliance with the above mentioned laws and regulations, effective immediately all projects being submitted for funding approvals are required to submit the DDOT Environmental Evaluation From- Part I (attached) before funding submissions. This form is available in the appendices of the DDOT Environmental Policy & Process Manual as well as online at www.ddot.dc.gov/environment

Effective immediately, projects that do not provide the DDOT Environmental Evaluation Form- Part I shall not be approved by the DDOT Project Development & Environment Branch for funding Obligation in FMIS.

Please contact Faisal Hameed, Manager Project Development & Environment, at 202-671-2326 for further information.

Attachment:
DDOT Environmental Evaluation From- Part I

DISTRICT DEPARTMENT OF TRANSPORTATION

PROJECT DEVELOPMENT & ENVIRONMENTAL EVALUATION FORM (PART I)

1. Project Name (& Number):

2. Project Location (including Ward and Project boundaries).   **Please attach a map of the project area**

3. Funding Type:

Federal   Local

4. Project Description:

5. Project Type:

Administrative   Planning   Environmental   PE

Final Design   PS&E   Construction   Maintenance

6. Purpose of the Project:

7. Need for the Project:

8. Total Cost of the Project: **9. Total Cost for this phase of the Project:**

10. Schedule of the Project (Planning, Design, Construction):

Planning   Environmental   PE   Final Design   PS&E   Construction

11. Project Information:	Yes	No	Note
A. Were DDOT administrations and stakeholders involved in Project Scoping/planning?			
B. Were other agencies (FHWA, SHPO, NPS etc) involved in Project Scoping/planning?			
C. Was a Public Involvement Plan prepared for the Project?			
D. Is the Project listed in TIP? (provide reference)			

E. Does the project address multimodal transportation needs (bike/transit/pedestrians)?			
F. Does the project affect a Park, Recreation area, or wildlife area?			
G. Does the project affect a historic/archeological site, area, or street?			
H. Does the project affect a water body (river, wetland, stream, etc)?			
I. Does the project add or remove any traffic lanes, ramps etc?			
J. Does the project cross or go over a navigation channel?			
K. Does the project impact habitat (fish/animal/plant)?			
L. Does the project involve ROW acquisition or relocation (Temporary or Permanent)?			
M. Have the Soil and Erosion plans been developed?			
N. Has Storm water Management plan been developed?			
O. Does the project have any noise impacts (e.g construction noise)?			
P. Is there any known controversy about the project?			
Q. Does the project affect the travel pattern?			
R. Does the project involve work on an Interstate or Freeway?			

12. Other Comments (use addition pages if needed):

13. Prepared by :   **Phone:**   **Date:**

(Project Manager Name and Administration):

To be filled by the DDOT Environmental Program Staff.

District Department of Transportation
Project Development & Environmental Evaluation Form (Part II)

1. PROJECT INFORMATION

Project Name:

Project Number:

Project Manager & Administration:

Route/Roadway:

Location/Termini (including Ward):

Description:

Project Type:

Administrative Work [   ]   Planning[   ]   Environmental Document [   ]

Preliminary Engineering [   ]   PS&E [   ]   Construction [   ]   Maintenance [   ]

Funding Type: Federal [   ]   Local [   ]

2. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

Does the project have?	Yes	No
(1) Significant environmental impacts;		
(2) Substantial controversy on environmental grounds;		
(3) Significant impact on properties protected by Section 4(f) of the DOT Act or section 106 of the National Historic Preservation Act		

	Yes	No
(4) Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action;		
(5) Significant changes in travel patterns;		
(6) Significant economic impacts;		
If the answer to any of the above is "Yes", an EA or EIS will be required.		

Check any of the following that apply [abbreviated list from 23 CFR771.117 (c). Is the project?	Yes	No
1. An activity that will not lead to construction (planning study, research document, administrative action, etc)		
2. A utility installation along or across a transportation facility		
3. Construction of Bicycle and Pedestrian Lanes, paths, and facilities		
4. Activities included in the State Highway Safety Plan		
5. Transfer of Federal Lands		
6. Installation of noise barriers to existing publicly owned buildings		
7. Landscaping		
8. Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals or railroad warning devices.		
9. Emergency repairs		
10. Acquisition of scenic easement		
11. Determination of Payback under 23 USC 156 for property previously acquired under federal aid.		
12. Improvements to existing rest areas and truck weigh stations.		
13. Related to Ridesharing activities		
14. Bus and rail car rehabilitation		
15. Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons		
16. Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.		
17. The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities which themselves are within a CE.		
18. Track and rail bed maintenance and improvements when carried out within the existing right-of-way.		
19. Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.		
20. Promulgation of rules, regulations, and directives.		
If the answer to any is "Yes", then Project qualifies as a Cat EX (CE).		

Check any of the following that apply [abbreviated list from 23 CFR771.117 (d) Is the project?	Yes	No
1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).		
2. Highway safety or traffic operations improvement projects including the Installation of ramp metering control devices and lighting.		
3. Bridge rehabilitation, reconstruction or replacement or the construction of grade separation to replace existing at-grade railroad crossings.		
4. Transportation corridor fringe parking facilities.		
5. Construction of new truck weighs stations or rest areas.		
6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.		
7. Approvals for changes in access control.		
8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation		
9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities		
10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements)		
11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes		
12. Acquisition of land for hardship or protective purposes; advance land acquisition loans		

If the answer to any is "Yes", then Project qualifies as a Cat EX (CE) with documentation.

3. Historic Resources

(including National Historic Preservation Act: section 106) Answer the following:	Yes	No
1- Is the project in a historic district, street, or property?		
2- Does the project qualify as an action covered in the DDOT/FHWA/SHPO Citywide Section 106 Programmatic Agreement (PA)? If "Yes" then the section 106 is complete. Report the project in the annual PA report.		
3- Does the project affect any historic district, street, or property?		
4- Does the project take a part or whole of the historic property or area?		
Additional notes:		
If the answer to 3 or 4 is "Yes" then Section 106 is applicable. Begin coordination with SHPO.		

4. SECTION 4(F)

Answer the following:	Yes	No
1- Is the project in a historic district, street, or property?		
2- Is the project in a park, recreation area, or wildlife refuge?		
3- Does the project affect (or use) any properties listed in "1" and "2"?		
Additional notes:		
If the answer to any of the above is "Yes" then Section 4f is applicable. Begin Section 4f evaluation.		

5. WATER RESOURCES

(including Section 404, 402 permits) Answer the following:	Yes	No
1- Does the project go over a water body (river, stream, and wetland)?		
2- Does the project affect any water body?		
3- Does the project require work in a water body?		
4- Is the project likely to discharge anything directly to a water body?		
Additional notes:		
If the answer to any of the above is "Yes" then a water resource (SECTION 404 or SECTION 402) permit may be required.		

6. FISH & WILDLIFE

(including Endangered Species Act) Answer the following:	Yes	No
1- Does the project involve work in wooded or vegetated areas?		
2- Does the project involve work in a water body (river, stream, and wetland)?		
3- Does the project affect any endangered species?		
Additional notes:		
If the answer to any of the above is "Yes" then coordinate with DDOE and Fish & Wildlife Service.		

7. AIR QUALITY

(including Clean Air Act) Answer the following:	Yes	No
1- Does the project add lanes or ramps to the existing facility?		

	Yes	No
2- Does the project remove lanes or ramps to the existing facility?		
3- Is the project included in the TIP (conformed)?		
4- Is the project increasing the Average Daily Traffic in the project area?		
5- Does the project require Air Quality Analysis (Hot Spot, MSAT, etc)?		
Additional notes:		
If the answer to any of the above is "Yes" then Clean Air Act conformity determination may be needed.		

8. HAZARDOUS MATERIALS

(including CERCLA and RCRA) **Answer the following:**	Yes	No
1- Does the project include any hazardous waste sites?		
2- Does the project involve any hazardous wastes?		
Additional notes:		
If the answer to any of the above is "Yes" then coordinate with DDOE to determine the appropriate analysis.		

9. NOISE

Answer the following:	Yes	No
1- Does the project increase the noise levels in the study area?		
2- Does the project significantly increase the noise levels in the study area?		
Additional notes:		
If the answer to any of the above is "Yes" then a noise analysis and mitigation may be needed.		

10. SOCIAL, ECONOMIC, EJ, & TITLE VI IMPACTS

Answer the following:	Yes	No
1- Does the project require Property Acquisitions?		
2- Does the project require Residential or Business displacement?		
3- Does the project negatively affect the project area economically?		
4- Does the project negatively affect any Title VI populations?		
5- Does the project negatively affect any EJ populations?		
6- Does the project negatively affect minority or small businesses?		
Additional notes:		
If the answer to any of the above is "Yes" then coordinate with the DDOT Civil Rights Office.		

11. DC ENVIRONMENTAL POLICY ACT (DCEPA)

a. Is the project?	Yes	No
1. A federal action (federally funded or requiring a federal action) where a NEPA Action (Cat Ex, EA, EIS) been taken on this project? (Reference: DCMR 7202.1(b))		
2. Planning or Feasibility Study or Preliminary Engineering (Reference: DCMR 7202.1(c))		
3. Operation, repair, maintenance, or minor alteration of existing public structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that previously existing; (Reference: DCMR 7202.2(a))		
4. Replacement, renovation, or reconstruction of existing structures and facilities, where the new or renovated structure meets the requirements of the Zoning Regulations, is located on the same site as the structure replaced, renovated, or reconstructed, will have substantially the same purpose and capacity as the structure replaced, renovated, or reconstructed, and will not exceed the density of that structure; (Reference: DCMR 7202.2(b))		
5. Construction and location of limited numbers of small facilities or structures; installation of new equipment in small structures, including replacement of HVAC, electrical, plumbing, elevator, sprinkler or other systems; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure (Reference: DCMR 7202.2(c))		
6. Construction or placement of minor structures accessory to existing commercial, industrial, or institutional facilities (Reference: DCMR 7202.2(g)). This class includes, but is not limited to: (1) On-premise signs; (2) Small parking lots (fewer than 50 vehicles);		
7. Action in the nature of a response to an emergency as determined by the Mayor; (Reference: DCMR 7202.2(h))		

If the answer to any of the above is "Yes" then the project can be approved as an Exemption under DCEPA. Proceed to Step 9.
   Only an Environmental Intake Form will be needed when submitted to DCRA that includes the exemption.

B. Does the Project:	Yes	No
1. Require an Environmental Impact Screening Form (EISF)?		
2. Require an EIS?		

12. ENVIRONMENTAL ACTION

A. Recommendation for Environmental Action:

Federal (NEPA) :	**CE** **[ ]**	**EA** **[ ]**	**EIS**
Local (DCEPA):	**Exempt** **[ ]**	**EISF**	**EIS**

If a Categorical Exclusion (NEPA), cite the appropriate reference(s) from Section 771.117:

Additional Documentation for CE needed [Yes/No]:

If a DCEPA Exemption, cite the appropriate reference(s) from Section 7202:

B. Are any of the following permits, assessments, approvals or reviews known or expected to be required? Check as appropriate [X]

4(f) determination	6(f) determination	USACE Sec 404 Permit	Architect of the Capitol Review
ROW Acquisition	Coast Guard Permit	Hazardous Waste	Commission on Fine Arts Review
Endangered Species Act Sec 7	Sec106 determination	NCPC Review	NPDES (Sec 402) Permit
Environmental Justice	Air Quality Analysis		

C. Additional Notes (use addition pages if needed):

D. Prepared by:

	Tele#:	**Date:**

E. Environmental Clearance by (Name):

	Tele#:	**Date:**

| **Office Operations EMS** |
| **Performance Reporting calculations** |

The following information is provided for use by the Environmental Management Representative, or designee, in preparing reports on office resource conservation performance for TPPA senior management.

Objective: Use less power – turn off lights.
Reporting Frequency: Semi-annually.
Assumptions:

- Lighting at each desk is rated at 50 watts.
- Each office and conference room is rated at 200 watts.
- Turning lights off at the end of the day yields the following hours –
  o Weekends (5PM Friday to 8AM Monday) – 63 hours @ 52 weekends/year
  o Holidays (5PM day before to 8AM day after) – 39 hours @ 14 holidays/year
  o Vacations (5PM one day to 8AM next day) – 15 @ 230 days/year
  o Workday evenings (5PM Friday to 8AM day Monday) – 231 hours @ 3 weeks/year
  o Total hours per year per – 7,965 hours
- For desk lights – 398 kilowatt hours
- For office lights – 1,593 kilowatt hours

Overall Potential Savings:

- Desks – X? desks x 398 = ?? kilowatt hours per year
- Offices – X? offices x 1,593 = ?? kilowatt hours per year
- Each kilowatt hour of delivered electricity (i.e., at the meter) is equivalent to 0.43 kilograms (0.95 lbs) of CO_2 emissions. Info can be found at: http://departments.oxy.edu/physics/csp6/CSP6_Handouts/EnergyConversion_CarbonTrust.pdf.

Reporting Based on Inspections: Refer to the above assumptions. Multiply the number of desk and office lights not turned off by the potential number of days in the reporting period by the usage values to identify the savings not realized (as a kilowatt hour or as a reduction in annual potential savings).

Objective: Use less power – turn off PCs and monitors.
Reporting Frequency: Semi-annually.
Assumptions:

- Reports indicate that monitors use about 1 watt when turned off (as compared with deep sleep mode). Refer to http://www.osti.gov/bridge/servlets/purl/799608-nlts28/native/799608.pdf.
- Reports indicate that desktop PCs use an average of 6 watts when turned off (as compared with deep sleep mode). Refer to http://www.osti.gov/bridge/servlets/purl/799608-nlts28/native/799608.pdf.
- Turning PCs and monitors off at the end of the day yields the following hours –
  o Weekends (5PM Friday to 8AM Monday) – 63 hours @ 52 weekends/year
  o Holidays (5PM day before to 8AM day after) – 39 hours @ 14 holidays/year
  o Vacations (5PM one day to 8AM next day) – 15 @ 230 days/year
  o Workday evenings (5PM Friday to 8AM day Monday) – 231 hours @ 3 weeks/year
  o Total hours per year per – 7,965 hours
- For PCs and monitors – 55 kilowatt hours

Overall Potential Savings:

- PCs and monitors – 36 units in use (as of July 2008) x 55 = 1,980 kilowatt hours per year.
- Each kilowatt hour of delivered electricity (i.e., at the meter) is equivalent to 0.43 kilograms (0.95 lbs) of CO_2 emissions. Info can be found at: http://departments.oxy.edu/physics/csp6/CSP6_Handouts/EnergyConversion_CarbonTrust.pdf.
- Potential CO_2 reduction if all machines turned off when not in use – 1,881 pounds per year.
- If one machine not turned off for a year– 55 kilowatt hours; 52 pounds of CO_2.

Reporting Based on Inspections: Refer to the above assumptions. Multiply the number of PCs and monitors not turned off by the potential number of days in the reporting period by the usage values to identify the savings not realized (as a kilowatt hour or as a reduction in annual potential savings).

Objective: Use less power – turn off printers.
http://www.scalabledesign.com/articles/power.html
Reporting Frequency: Semi-annually.
Assumptions:

- Reports indicate that laser printers may consume as much as 16 watts when turned off (as compared with sleep mode). For the purposes of this effort assume 10 watts Refer to http://www.energyoffice.org/english/tools/checklists/meas_erl_en.pd.
- Turning printers off at the end of the day yields the following hours –
  o Weekends (5PM Friday to 8AM Monday) – 63 hours @ 52 weekends/year
  o Holidays (5PM day before to 8AM day after) – 39 hours @ 14 holidays/year
  o Vacations (5PM one day to 8AM next day) – 15 @ 230 days/year
  o Workday evenings (5PM Friday to 8AM day Monday) – 231 hours @ 3 weeks/year
  o Total hours per year per – 7,965 hours
- For printers – 79 kilowatt hours

Overall Potential Savings:

- Printers – 15 units (as of July 2008, including plotters) x 79 = 1,185 kilowatt hours per year.
- Each kilowatt hour of delivered electricity (i.e., at the meter) is equivalent to 0.43 kilograms (0.95 lbs) of CO_2 emissions. Info can be found at: http://departments.oxy.edu/physics/csp6/CSP6_Handouts/EnergyConversion_CarbonTrust.pdf.
- Potential CO_2 reduction if all machines turned off when not in use – 1,125 pounds per year.
- If one printer not turned off for a year– 79 kilowatt hours; 75 pounds of CO_2.

Reporting Based on Inspections: Refer to the above assumptions. Multiply the number of printers not turned off by the potential number of days in the reporting period by the usage values to identify the savings not realized (as a kilowatt hour or as a reduction in annual potential savings).

Objective: Use less paper. Use recycled paper.
Reporting Frequency: Annually.
Assumptions:

- Data for 2008 is as follows: March (30 reams, 5 boxes); April (24 reams, 4 boxes); May (30 reams, 5 boxes); June (30 reams, 5 boxes).
- Reports indicate that the energy costs of paper is as follows (refer to

Overall Potential Savings:
- Using 100% recycle vs. new wood paper saves 14.4 kilowatt hours of energy per box.
- Using 100% recycle vs. 20% recycle saves 11.5 kilowatt hours of energy.
- Each kilowatt hour of delivered electricity (i.e., at the meter) is equivalent to 0.43 kilograms (0.95 lbs) of CO_2 emissions. Info can be found at: http://departments.oxy.edu/physics/csp6/CSP6_Handouts/EnergyConversion_CarbonTrust.pdf
- The March-June 2008 information indicates an annual paper usage of approximately 57 boxes of paper.
  - o Using entirely 100% recycle versus 20% recycle saves about 655 kilowatt hours of energy per year. The CO_2 reduction in this case is 622 pounds per year.
  - o Using entirely 100% recycle versus new paper saves about 820 kilowatt hours of energy per year. The CO_2 reduction in this case is 779 pounds per year.
- Reducing paper consumption by 5% (i.e., 3 boxes) per year (assuming 100% recycle paper is used) saves approximately 103 kilowatt hours of energy. The associated CO_2 reduction is 98 pounds per year.

Reporting Based on Assessments: Refer to the above assumptions.
- Track usage and purchases to determine quantity of 100% recycle paper used vs. quantity of new or other recycled content paper used.
- Track overall paper consumption usage to assess savings vs. baseline (e.g March-June 2008).

Objective: Use public transit or bicycles to the fullest extent practical when travelling on work related activities.
Reporting Frequency: Semi-annually.
Assumptions:
- One trip made using public transit/non-vehicular transport would require a 10 mile roundtrip.
- Assuming use of a moderately fuel efficient vehicle rated at 30 mpg city, this trip would consume 0.3 gallons of gasoline.
- EPA's web site indicates 8.81×10^{-3} metric tons CO_2/gallon. Refer to http://www.epa.gov/cleanenergy/energy-resources/refs.html.

Assumptions:
- One trip made using public transit/non-vehicular transport would require a 10 mile roundtrip.
- Assuming use of a moderately fuel efficient vehicle rated at 30 mpg city, this trip would consume 0.3 gallons of gasoline.
- EPA's web site indicates 8.81×10^{-3} metric tons CO_2/gallon. Refer to http://www.epa.gov/cleanenergy/energy-resources/refs.html.

Reporting Based on Assessments: Use TPPA travel records to determine the total number of trips for away from Reeves Center for TPPA business. Using these records, determine the number of times that public transit or means other than a vehicle were used to travel. Semi-annually determine the percentage of trips made using public/non-vehicular transport. Compare this result with the target value – the target recognizes that there may be times at which vehicular transport is necessary. Multiply the number of trips in which public transit/non-

vehicular transport by the fuel and CO2 reductions to determine the overall environmental benefits achieved in the reporting period.

Objective: 100% use of Energy Star office equipment.
Reporting Frequency: Annually.
Reporting Based on Assessments: Review equipment inventory and purchase records to determine the numbers and items of older equipment replaced with Energy Star equipment. Use EPA's data to determine the energy savings achieved through such replacement. Refer to above information that indicates each kilowatt hour of electricity saved is equivalent to a reduction of 0.95 pounds of CO2 emissions. EPA's web site can be accessed at
http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductCategory&pcw_code=OEF.

Overall Potential Savings:

Reporting Based on Assessments: Refer to the above assumptions.

Appendix B:
Project Development EMS Report

Project Development & Environmental Review EMS Report

1. Executive Summary:

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2. Overall Objectives, Measures, Targets, and Programs

Objective	Measure	Target	Relevance
Incorporate Environmental features in transportation projects	1. Number of environmental projects 2. Number of projects with environmental components* 3. lbs of emissions reduced 4. lbs of GHG emissions reduced 5. % Reduction in fuel consumption 6. % increase in usable green/open space	1. At least one project annually 2. At least 50% projects annually 3. 5% annual decrease 4. 5% annual decrease 5. 1% annual decrease 6. 0.3% annual increase	Demonstrates DDOT's efforts to protect the environment, reduce pollution, and develop projects in a sustainable manner. * environmental components include: landscaping, tree planting, LID, BMP, etc.
Increase use of environmentally beneficial and recycled materials in projects	1. % of material recovered and reused/recycled 2. % of environmentally beneficial materials used	1. 2% annual increase 2. 2% annual increase	Promotes sustainability, Reduces resource consumption and waste generation.
Identify environmental requirements for new projects in a timely manner	• % of Evaluation Form reviews and concurrences completed	• 100% annually	Timely completion of documents and, in turn, timely, cost-effective completion of projects.
Avoid rework and delays due to unidentified environmental & other issues and changes in projects and documents	1. Number of projects in which additional time is spent in revising documents and submittals. 2. Time spent in additional revisions and delays 3. Delay in number of days	1. Less than 10% of projects 2. Less than 40 man hours per project 3. Less than 10 days of delay	Applies to projects in all phases. Coordination within DDOT and with agencies and comprehensive evaluation of environmental needs lead to cost and schedule control.
Avoid delays in obtaining permits and approvals	• % of projects in which permits are available at start of construction	• 100% annually	Leads to cost and schedule control.
Fulfill environmental commitments and requirements	• % of projects in which commitments are fulfilled as identified in environmental, design, and construction documents	• 100% annually	Provides effective relationships with agencies and the public and, in turn, timely reviews and approvals.

4. Roles, Responsibility, & Authority

Objective	Roles	Responsibility	Authority
Incorporate Environmental features in transportation projects	• Project Managers • Project Team • Environmental Staff • EMR	• Project Managers	Project Manager
Increase use of environmentally beneficial and recycled materials in projects	• Project Managers • Project Team • Environmental Staff • EMR	• Project Managers	Project Manager
Identify environmental requirements for new projects in a timely manner	• Project Managers • Project Team • Environmental Staff	• Project Managers • Environmental Staff	Environmental Staff
Avoid rework and delays due to unidentified environmental & other issues and changes in projects and documents	• Project Managers • Project Team • Environmental Staff	• Project Managers • Project Team • Environmental Staff	Environmental Staff
Avoid delays in obtaining permits and approvals	• Project Managers • Environmental Staff	• Project Managers • Environmental Staff	Project Manager.
Fulfill environmental commitments and requirements	• Project Managers • Environmental Staff • EMR	• Project Managers • Environmental Staff	Environmental Staff.

5. Competence, Training, and Awareness:

Training	Date	Frequency	Recipients
EMS Awareness			
EMS Implementation			
NEPA			
Section 106			
Section 4f			
Section 404, 402			
DDOT Environmental Policy & Project Development Process			
Others			

6. Communication:

Document/Information	Date	Frequency	Recipients
Environmental Policy			
EMS focus and the importance of conformance with its associated procedures and policies;			
EMS responsibilities and EMS guidance related to their job activities; and,			
EMS procedures, processes, and tools associated with their work activities.			

7. Documentation :

Document	Maintained by	Revision/Update/ Data Collection
Environmental Policy		
Scope of EMS;		
Main Elements of EMS		
Documents and records (including forms & checklists) that will be collected and documented to ensure the effective implementation and operation of the EMS.		

8. Control of Documents:

Document/Information	Revised (Y/N)	Date	Description
Environmental Policy			
EMS Manual			
EMS Data			
EMS Reports			
EMS Procedures			

9. Operational Control:

Phase	Number of Environmental Forms	Complete (Y/N)
Transportation Planning		
Planning		
Design		
Construction		

10. Emergency Preparedness and Response:

Event	Date	Observation

10. Checking (Monitoring and Measurement):

Objective	Measure	Target	Observation	Corrective Action
Incorporate Environmental features in transportation projects	1. Number of environmental projects 2. Number of projects with environmental components* 3. lbs of emissions reduced 4. lbs of GHG emissions reduced 5. % Reduction in fuel consumption 6. % increase in usable green/open space	1. At least one project annually 2. At least 50% projects annually 3. 5% annual decrease 4. 5% annual decrease 5. 1% annual decrease 6. 0.3% annual increase		
Increase use of environmentally beneficial and recycled materials in projects	1. % of material recovered and reused/recycled 2. % of environmentally beneficial materials used	1. 2% annual increase 2. 2% annual increase		
Identify environmental requirements for new projects in a timely manner	• % of Evaluation Form reviews and concurrences completed	• 100% annually		
Avoid rework and delays due to unidentified environmental & other issues and changes in projects and documents	1. % of projects in which additional time is spent in revising documents and submittals. 2. Time spent in additional revisions and delays 3. Delay in number of days	1. Less than 10% of projects 2. Less than 40 man hours per project 3. Less than 10 days of delay		
Avoid delays in obtaining permits and approvals	• % of projects in which permits are available at start of construction	• 100% annually		
Fulfill environmental commitments and requirements	• % of projects in which commitments are fulfilled	• 100% annually		

11. Evaluation of Compliance:

OVERALL

Objective/Action	Compliance (Y/N)
Incorporate Environmental features in transportation projects	
Increase use of environmentally beneficial and recycled materials in projects	
Identify environmental requirements for new projects in a timely manner	
Avoid rework and delays due to unidentified environmental & other issues and changes in projects and documents	
Avoid delays in obtaining permits and approvals	
Fulfill environmental commitments and requirements	
Date:	

PROJECT LEVEL

Objective/Action	Compliance (Y/N)
Incorporate Environmental features in transportation projects	
Increase use of environmentally beneficial and recycled materials in projects	
Identify environmental requirements for new projects in a timely manner	
Avoid rework and delays due to unidentified environmental & other issues and changes in projects and documents	
Avoid delays in obtaining permits and approvals	
Fulfill environmental commitments and requirements	
Date:	

12. Nonconformity, Corrective Action, and Preventive Actions:

Non Conformity Event	Corrective Action	Preventive Action

13. Control of Records:

Record Type	Record Collected (Y/N)	Record Location
Results of performance monitoring and compliance evaluations,		
Nonconformity reviews,		
Corrective and preventive action determinations,		
Reports on emergency incidents,		
Summary of response actions taken to emergency incidents,		
Summary of external inquiries and the associated responses,		
Internal audit results,		
Presentations and communications to senior management, and		
Decisions and directions provided by senior management in the course of EMS reviews.		

14. Internal Audit:

Audit Type	Date	Observation

15. Management Review:

Summary Report	Report Included (Y/N)	Summary
The results of internal audits,		
Communications from external parties,		
The extent to which EMS objectives and targets have been met		
Compliance evaluation results, Status of corrective and preventive actions,		
Follow-up actions from previous management reviews,		
Changing circumstances related to the DDOT's EMS, and		
Recommendations for EMS improvements.		

16. OVERALL PERFORMANCE REPORT

Measure	Target	Time Saving	Cost Saving	Emission Reductions	Carbon footprint Reduction
1. Number of environmental projects 2. Number of projects with environmental components* 3. lbs of emissions reduced 4. lbs of GHG emissions reduced 5. % Reduction in fuel consumption 6. % increase in usable green/open space	1. At least one project annually 2. At least 50% projects annually 3. 5% annual decrease 4. 5% annual decrease 5. 1% annual decrease 6. 0.3% annual increase				
1. % of material recovered and reused/recycled 2. % of environmentally beneficial materials used	1. 2% annual increase 2. 2% annual increase				
• % of Evaluation Form reviews and concurrences completed	• 100% annually				
1. % of projects in which additional time is spent in revising documents and submittals. 2. Time spent in additional revisions and delays 3. Delay in number of days	1. Less than 10% of projects 2. Less than 40 man hours per project 3. Less than 10 days of delay				
• % of projects in which permits are available at start of construction	• 100% annually				
• % of projects in which commitments are fulfilled	• 100% annually				
Total					

Appendix C:
Office Operations EMS Report

Office Operations EMS Report

1. Executive Summary:

2. Objectives, Measures, Targets, and Programs

Objective	Measure	Target
Save Energy	- Number & percentage of lights, PCs turned off - Power savings associated with equipment turned off - Carbon emissions associated with power savings	100% off (based on periodic after-hours). - Reduce 5% power use annually. - Reduce 1% carbon emissions
Conserve Resources	- Quantity of paper. - Quantity of office supplies (toners, folders, pens, etc) - Quantity of new electronic equipment	- Reduce paper use by 5% every year - Reduce supply use by 5% every year - Reduce the number of individual printers
Recycle	% recycled content - Number of recycled product	Increase the recycled content of paper from 30% Increase the use of recycled products by 5%.
Alternative Modes of Travel	Number of work related trips.	70% of trips.
Environmentally Sustainable Products	- Number of energy-save products - Number of green products	100% printers, PCs and laptops should be energy star rated. 20% of all office products should be green

* Note: All targets should be revised annually.

3. Implementation and Operations:
Resources, Roles, Responsibility, and Authority: Roles, Responsibilities, & Authority

Resource	Roles	Responsibility & Authority
Energy	▪ Turn off desk light at the end of the day. ▪ Turn off light when leaving during the day for long period of time. ▪ Enable the sleep mode on PCs, monitors, copiers, printers. ▪ Turn off/Shutdown PC at the end of the day	▪ All Staff members are responsible for turning off their lights, PC, etc. ▪ EMR or designee will monitor/provide periodic checks.
Office Supplies & Other Resources	▪ Use double sided printing ▪ Reduce printing ▪ Reduce color printing ▪ Reduce number of new electronic equipment ▪ Reduce use of office supplies (toners, folders, pens, etc)	▪ All Staff members are responsible for reducing use of resources. ▪ EMR or designee will monitor/provide periodic checks. ▪ EMR or designee will work with Operations manager/administrative staff to ensure reduction in supplies, resources, and equipment.
Recycling	▪ Increase use of recycled content ▪ Increase use of recycled product ▪ Increase use of recycled content/products in consultant products submitted to DDOT.	▪ All Staff members are responsible for increasing recycling. ▪ EMR or designee will monitor/provide periodic checks. ▪ EMR or designee will work with Operations manager/administrative staff to ensure increase in recycled products and recycled content
Alternative Modes of Travel	Use alternative modes of travel for work related trips.	▪ All Staff members are responsible for increasing use of alternative modes. ▪ EMR or designee will monitor/provide periodic checks.
Environmentally Sustainable Products	▪ Only buy Energy Star rated electronic office appliances ▪ Increase use of environmentally sustainable products ▪ Increase use of green products	▪ EMR or designee will monitor/provide periodic checks. ▪ EMR or designee will work with Operations manager/administrative staff to ensure increase use of environmentally sustainable products.

4. Competence, Training, and Awareness:

Communication/Training	Date	Frequency	Recipients
General distribution e-mails			
Brochures/flyers			
Posters and handouts			
E-mails presenting performance surveys and results.			
Reminders to follow existing Office Operations EMS practices and responsibilities,			
New or additional Office Operations EMS practices and responsibilities,			
A review of Office operations EMS achievements, and Actions needed to maintain or improve performance.			
Others			

5. Communication:

Document/Information	Date	Frequency	Recipients
Environmental Policy			
Office Operations EMS focus and the importance of conformance with its associated procedures and policies;			
EMS responsibilities and EMS guidance related to their job activities; and,			
EMS procedures, processes, and tools associated with their work activities.			

6. Documentation :

Document	Maintained by	Revision/Update/ Data Collection
Environmental Policy		
Scope of EMS;		
Main Elements of EMS		
Documents and records (including forms & checklists) that will be collected and documented to ensure the effective implementation and operation of the EMS.		

7. Control of Documents:

Document/Information	Revised (Y/N)	Date	Description
Environmental Policy			
EMS Manual			
EMS Data			
EMS Reports			
EMS Procedures			

8. Operational Control:

Resource	Roles	Operational Control
Energy	§ Turn off desk light at the end of the day. § Turn off light when leaving during the day for long period of time. § Enable the sleep mode on PCs, monitors, copiers, printers. § Turn off/Shutdown PC at the end of the day	§ EMR or designee will monitor/provide periodic checks & develops reports. § Reports are distributed routinely.
Office Supplies & Other Resources	§ Use double sided printing § Reduce printing § Reduce color printing § Reduce number of new electronic equipment § Reduce use of office supplies (toners, folders, pens, etc)	§ EMR or designee reviews all supply orders before final order § EMR or designee reviews printing reports § EMR or designee provides monitoring / periodic checks
Recycling	§ Increase use of recycled content § Increase use of recycled product § Increase use of recycled content/products in consultant products submitted to DDOT.	§ EMR or designee reviews all supply orders before final order § EMR or designee will monitor/provide periodic checks.
Alternative Modes of Travel	Use alternative modes of travel for work related trips.	§ EMR or designee reviews travel trip logs § EMR or designee will monitor/provide periodic checks.
Environmentally Sustainable Products	§ Only buy Energy Star rated electronic office appliances § Increase use of environmentally sustainable products § Increase use of green products	§ EMR or designee reviews all orders before final order is sent to vendor. § EMR or designee will monitor/provide periodic checks.

9. Emergency Preparedness and Response:

Event	Date	Observation

10. Checking (Monitoring and Measurement):

EMS Performance Inspection Report			
Resource	**Action**	**Observation**	**Corrective Action**
Energy	▪ Number of desk lights turned off ▪ Number of PCs, monitors, copiers, printers on Sleep Mode. ▪ Number of PC s Turned off/Shutdown at the end of the day		
Office Supplies & Other Resources	▪ Total Number of Pages printed ▪ Reduction in printing (compared to previous inspection) ▪ Number of new electronic equipment ▪ Quantity of office supplies (toners, folders, pens, etc)		
Recycling	▪ % Recycled content used ▪ Number of recycled product ▪ % recycled content/products in consultant products submitted to DDOT.		
Alternative Modes of Travel	▪ Number of Total Trips ▪ Number of Trips using Alternate modes		
Environmentally Sustainable Products	▪ % of Energy Star rated electronic office appliances ▪ % environmentally sustainable products ▪ % green products		
Inspection Date & Time:		**Inspected By:**	

11. Evaluation of Compliance:

Resource	Action	Compliance (Y/N)
Energy	▪ Number of desk lights turned off ▪ Number of PCs, monitors, copiers, printers on Sleep Mode. ▪ Number of PC s Turned off/Shutdown at the end of the day	
Office Supplies & Other Resources	▪ Total Number of Pages printed ▪ Reduction in printing (compared to previous inspection) ▪ Number of new electronic equipment ▪ Quantity of office supplies (toners, folders, pens, etc)	
Recycling	▪ % Recycled content used ▪ Number of recycled product ▪ % recycled content/products in consultant products submitted to DDOT.	
Alternative Modes of Travel	▪ Number of Total Trips ▪ Number of Trips using Alternate modes	
Environmentally Sustainable Products	▪ % of Energy Star rated electronic office appliances ▪ % environmentally sustainable products ▪ % green products	
Inspection Date & Time:		**Inspected By:**

12. Nonconformity, Corrective Action, and Preventive Actions:

Non Conformity Event	Corrective Action	Preventive Action

13. Control of Records:

Record Type	Record Collected (Y/N)	Record Location
Results of performance monitoring and compliance evaluations,		
Nonconformity reviews,		
Corrective and preventive action determinations,		
Reports on emergency incidents,		
Summary of response actions taken to emergency incidents,		
Summary of external inquiries and the associated responses,		
Internal audit results,		
Presentations and communications to senior management, and		
Decisions and directions provided by senior management in the course of EMS reviews.		

14. Internal Audit:

Audit Type	Date	Observation

15. Management Review:

Summary Report	Report Included (Y/N)	Summary
The results of internal audits,		
Communications from external parties,		
The extent to which EMS objectives and targets have been met		
Compliance evaluation results, Status of corrective and preventive actions,		
Follow-up actions from previous management reviews,		
Changing circumstances related to the DDOT's EMS, and		
Recommendations for EMS improvements.		

16. Overall Performance Report:

EMS Performance Report					
Resource	**Action**	**Target**	**Savings (Resources /Energy)**	**Savings ($)**	**Carbon Footprint Reduction**
Energy	▪ Number of desk lights turned off ▪ Number of PCs, monitors, copiers, printers on Sleep Mode. ▪ Number of PC s Turned off/Shutdown at the end of the day				
Office Supplies & Other Resources	▪ Total Number of Pages printed ▪ Reduction in printing (compared to previous inspection) ▪ Number of new electronic equipment ▪ Quantity of office supplies (toners, folders, pens, etc)				
Recycling	▪ % Recycled content used ▪ Number of recycled product ▪ % recycled content/products in consultant products submitted to DDOT.				
Alternative Modes of Travel	▪ Number of Total Trips ▪ Number of Trips using Alternate modes				
Environmentally Sustainable Products	▪ % of Energy Star rated electronic office appliances ▪ % environmentally sustainable products ▪ % green products				
Total					
Inspection Date & Time:			**Inspected By:**		

17. EMS Office Supplies Reporting Sheet

Supply:

Paper	Cartridge	Toner	Folders	Other (describe)	
Month	**Date**	**Quantity**	**Recycle Content**	**Energy Star**	**Other Information**
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					