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Transportation

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DISTRICT DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL MANAGEMENT SYSTEM

d
Environmental Management System

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ENVIRONMENTAL MANAGEMENT SYSTEM

DISTRICT DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL
MANAGEMENT SYSTEM

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FOREWORD

The District Department of Transportation (DDOT) Environmental Management System: Structure & Implementation Guide has been developed to initiate the implementation of an Environmental Management System (EMS) at DDOT. This guide provides a general structure of the EMS that will be implemented at DDOT along with instructions for implementation. 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 at DDOT has been developed following ISO 14001 structure. DDOT is not currently pursuing ISO 14001 certification however, the EMS is designed following ISO 14001 so that later on if the decision is made to get certification, every thing needed would be in place.

EMS at DDOT is planned to be implemented in different phases. As the first phase the EMS is being implemented on the DDOT Project Development & Review process along with the office operations of DDOT's Transportation Policy & Planning Administration (TPPA). After the implementation of EMS on these two areas, the EMS can be implemented on other areas within DDOT.

Lastly, I would like to acknowledge our consultant Dave Soltis (TLI Solutions, Inc.) whose hard work made this document possible.

Faisal Hameed
Manager, Project Development & Environment
October, 2008

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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.

Plan
What are we going to do?

• Identify needs and opportunities
•Set your expectations
•Define basic plan to meet needs and opportunities
•Determine financial and personnel requirements and schedule

Do
Let's do what we said!

• Identify who is responsible and affected
•Develop procedures and tools to fulfill objectives and plans
•Develop and provide training relevant to the plan
•Follow procedures, processes, and protocols

Act
Do we need any changes, where do we go from here?

• Determine what, if anything, needs to be changed
•Identify specific adjustments
•Determine whether to stay with the current plan or change

Check
Have we met our expectations?

•Assess our performance
•Determine whether meeting objectives and targets
•Did things work as planned/expected
•Identify root causes
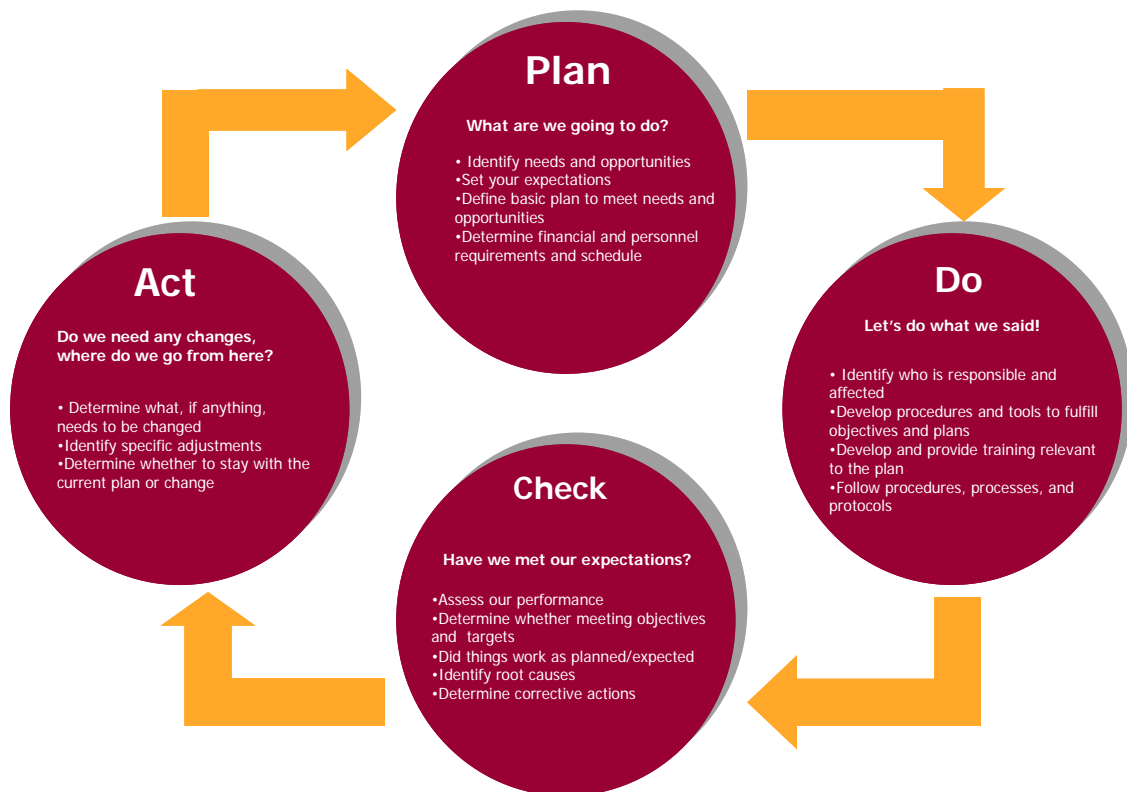•Determine corrective actions

Figure 1: Plan-Do-Act-Check 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.
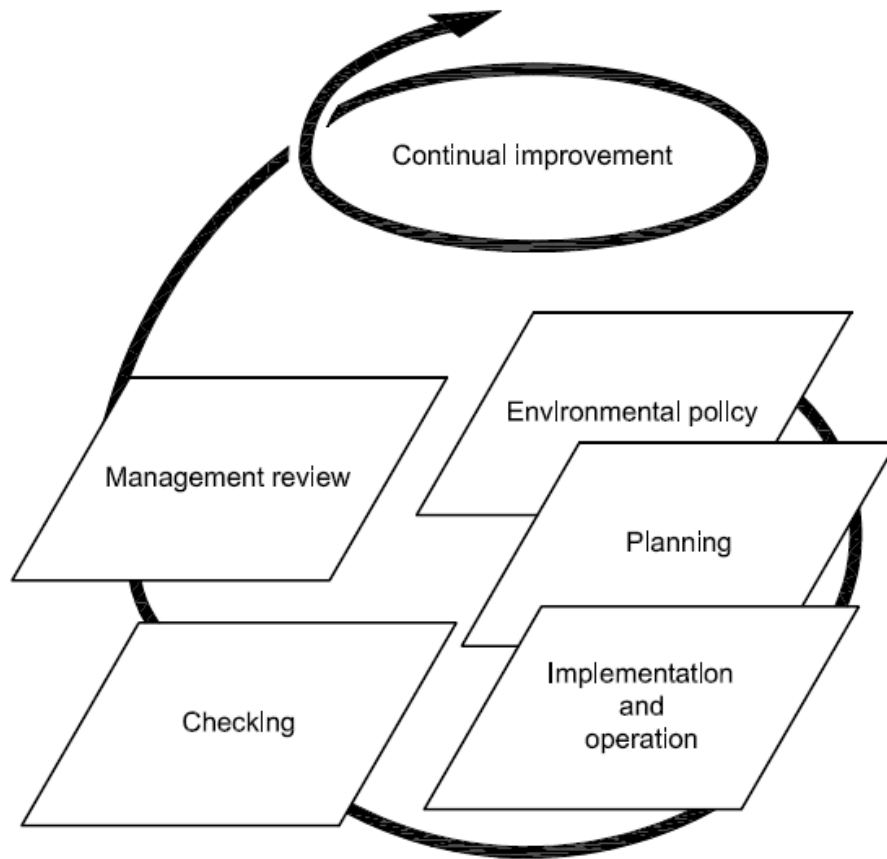
Figure 2: ISO Process Approach (source: ISO 14001-2004: Environmental Management Systems-Requirements with Guidance. Standards Australia 2004)

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 Environmental Review & Support
2. Transportation Policy & Planning Administration (TPPA) Office Operations

In the DDOT Environmental Review & Support EMS, reviews & environmental compliance 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. These reviews will ensure that NEPA and other environmental laws are being followed. 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 fiscal year. Chapter 4 "Environmental Review and Support" provides details on this.

In the TPPA Office Operations EMS, TPPA 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 "TPPA Officer Operations and Resource Conservation" provides details on this.

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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 recently revised. On July 29, 2008 the DDOT Director signed the new DDOT Environmental policy.This policy remains in effect until revised or is rescinded. The DDOT Environmental Policy is given on the next page.

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

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Office of the Director

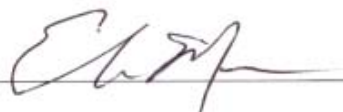## District Department of Transportation Environmental Policy

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

DDOT's goals for environmental excellence are:

1. Protecting the environment
2. Reducing and Preventing pollution
3. Using resources efficiently
4. Developing transportation projects and conducting operations in an environmentally sustainable manner.

In pursuing these goals DDOT will:

- Incorporate considerations for continual environmental excellence in activities to plan, design, build, operate, and maintain the transportation system and its support facilities.
- Provide DDOT employees with the procedures, training, and means to fulfill its goals.
- Comply with applicable environmental legislation and requirements.
- Communicate this policy to the DDOT employees, consultants, public and other stake holders.
- Establish objectives and measures to assess DDOT's performance in fulfilling its goals for environmental excellence.
- Identify and implement actions to continually improve environmental excellence performance to the full practical extent.
- Prepare periodic reports on DDOT environmental performance.

Signed: _____   July 29, 2008

Emeka C. Moneme, Director
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3

EMS STRUCTURE & APPROACH

3 EMS STRUCTURE & APPROACH

1.0 PURPOSE

This document describes the structure and approach for DDOT's Environmental Management System (EMS). Details on implementing this EMS are presented in separate documents, which are called EMS Implementation Guides.

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.

3.0 DEFINITIONS

The definitions for terms and titles used in this document are presented in the Glossary provided as Appendix A.

4.0 DDOT's EMS Structure and 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. The following subsections are based on the titles of each ISO 14001 element – positions with responsibilities are highlighted in bold.

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** signed the original Policy. Subsequent revisions (if needed) of the Policy will be signed by the current Director 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 <u>communicated</u>, via established mechanisms, to employees, the public, and all parties working on behalf of DDOT. These mechanisms include DDOT's website. Communication methods and responsibility(ies) 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.

- **Environmental reviews and support** as part of DDOT's overall process for planning, developing, and completing transportation projects.   These projects include major transportation construction and reconstruction/renovation efforts (e.g., bridge construction or reconstruction, or roadway reconstruction) as well as maintenance of the District's transportation infrastructure. Maintenance efforts may not be subject to the same level of environmental review, approval, and documentation processes applied to major transportation projects, however, DDOT has included these efforts in this EMS to ensure consistent compliance with requirements.

- **TPPA office operations.** This endeavor will initially focus on office operations of TPPA but will eventually be expanded to include DDOT's other Administrations.   This aspect does not include equipment or facilities acquired or operated by another District Department.

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

- 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. To facilitate further review, the issues and opportunities were grouped as follows:
    - Compliance – including regulatory requirements for operations, planning, and emergency response;
    - Impact on the environment – for air quality and water quality;
    - Waste generation – of regulated wastes and solid wastes;

- - Resource consumption – of fuel, power, chemicals, metals, office materials, and water; and,
  - Community initiatives to improve the environment.
  - o Characterized the environmental issues as significant, modest, and minimal/nil. Following are the characterization descriptions for each issue/opportunity grouping (these groupings
    - Compliance – based on risk;
    - Impact on the environment – based on actual or potential impact;
    - Waste generation – considers management requirements and/or reduction potential (based on quantities);
    - Resource consumption – assesses reduction potential (based on quantities); and,
    - Community initiatives – considerations include established, planned, or no current initiatives.

- 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. TPPA selection as the focus for these initial efforts is based upon the following considerations.
  - o TPPA originated and fulfilled the EMS gap analysis efforts.
  - o TPPA's responsibility's include: Policy Development, Strategic Transportation Planning (including project development and environmental review), and Plan Review and Compliance. TPPA's duties include incorporation of environmental management into the DDOT decision-making process.
  - o Within the environmental reviews significant aspect, TPPA is a key link in the environmental review process.

- Evaluation of the activities and associated environmental impacts of TPPA and its activities with other DDOT administrations.

- Relative need for and potential impact and benefit of environmental review and support activities with respect to other TPPA activities.

- The ability of an EMS to provide information for and support TPPA'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 triennially 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)

With respect to <u>Environmental reviews and support</u>, the review process is based upon NEPA, DCEPA, and other regulatory reviews that must be fulfilled prior to project design, construction, and operation. The completeness and currency of requirements identification is ensured through the following means.

- TPPA project review staff maintain frequent, routine contact with all agencies that are part of the transportation project review and approval process. These contacts ensure that all current, potentially applicable requirements are identified.
- As performed under the EMS Implementation Guide, each project or category of projects is subject to TPPA and, as applicable, external regulatory agency review and approval.
- "Other requirements" for transportation projects may be found in DDOT policies or identified through interaction with residents of affected communities and with other stakeholders. Such interactions are incumbent within NEPA and DCEPA processes.
- The EMS Implementation Guide contains process maps and instructions to ensure that environmental review and approval requirements are fulfilled. This Guide also provides templates and other tools to capture, track, and ensure fulfillment of identified legal and other requirements.
- DDOT's Environmental Policy and Process Manual provides detailed instructions on the 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 Manager for Project Development and the Environment**. The instructions are to be followed by all DDOT personnel involved in transportation project planning, development, design, and construction.

With respect to the <u>TPPA office operations</u>, this significant aspect/EMS focus is not driven by legal requirements. This focus does, however, fulfill the following goals for environmental excellence as stated in DDOT's environmental policy:
- Use resources efficiently, and
- Conduct operations in an environmentally sustainable manner.

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

DDOT's EMS uses the following elements to provide the structure and process to evaluate the Department's performance in complying with legal and other requirements, fulfilling environmental commitments, preventing pollution, conserving resources, and continually improving the timeliness and quality of environmental reviews.

- Environmental Performance Objectives – the specific goals (including responsibilities for implementation) established by DDOT that relate to each EMS significant aspects/focus;
- Environmental Performance Measures – quantifiable values that can be used, on an ongoing as well as periodic basis, to assess the DDOT's success in meeting its environmental objectives (examples include % conformance with due dates or performance "scores"); and,
- Environmental Performance Targets – performance requirements (with associated timeframes) based on the performance measures that establish a measurable aim for each environmental objective.

DDOT's EMS objectives, measures, and targets are presented in the next chapters.

The **Environmental Management Representative**, or his/her designee, periodically collects information for management and **DDOT Senior Management** review performance in meeting objectives and targets as described in Sections 4.12, Monitoring and Measurement, and 4.17, Management Review.

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 the EMS Implementation Guide. This Guide also identifies the relevant roles, responsibilities, and authorities for these personnel. 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.

DDOT Senior Management ensure that, within the fiscal constraints imposed of the District's and the Department's budgetary processes, resources are made available to fulfill DDOT's environmental goals as stated in the Environmental Policy and the objectives of this EMS.

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

DDOT's EMS Training Program is presented in the EMS Implementation Guide. 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 assure 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)

Internal and external communications related to Environmental reviews and support are 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 – the EMR may be assisted in these efforts by the Ward-based teams.

Internal and external communications related to the TPPA office operations are focused on TPPA personnel working in TPPA's offices in the Reeves Center. The **Environmental Management Representative (EMR)**, or his/her designee, is responsible for coordinating internal and external communications.

Internal communications materials are presented in the EMS Implementation Guide. 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. 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 (refer to Section 4.1);

- The scope of the EMS (refer to Section 4.2);
- The main elements of the EMS (refer to Section 4.10 and the EMS Implementation Guide); and,
- Documents and records (refer to this Structure/Approach document and the EMS Implementation Guide).

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, this EMS Structure/Approach documents, and the 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 EMS Implementation Guide. As noted previously in this Document, the **Environmental Management Representative**, or his/her designee, is responsible for maintaining and distributing the 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.

4.10.1 Environmental review and support

DDOT transportation projects follow the same basic process from initial needs identification and planning through design, construction, and operation. Maintenance projects and activities follow the elements of this overall process. Exhibit 1 presents a process map that illustrates the basic steps for transportation project planning through implementation and the need for environmental reviews and support across these steps.

The details provided in the EMS Implementation Guide for Environmental Reviews are based on this process. Guide details include:
- A process map that illustrates the basic sequence and flow of specific activities within each major step;

- Detailed instructions for performing the requisite environmental consultation and reviews, and providing appropriate environmental support at each step, including:
  - o The actions to be performed (What?),
  - o The party/ies responsible for the action (Who?),
  - o The schedule or time frame for the action (When?), and
  - o Relevant guidance and tools (Any help?); and,
- Performance objectives, measures, and targets.

Exhibit 1
Transportation Project Process Overview

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

Environmental Consultation and Review
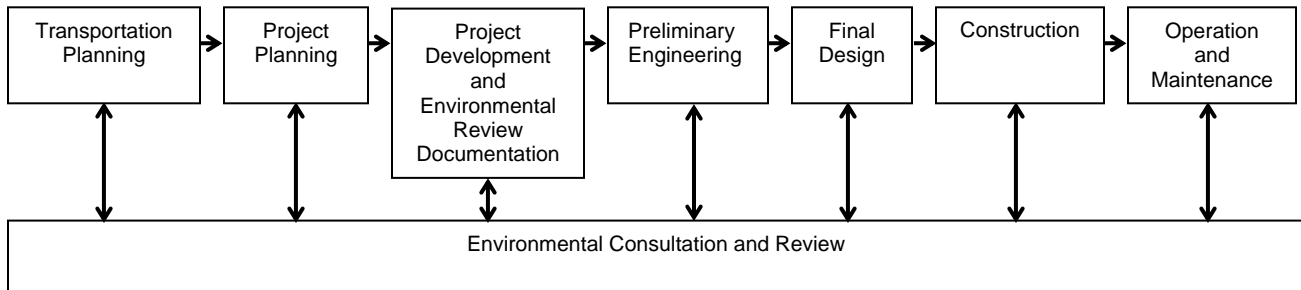
4.10.2 TPPA office operations

The procedures and practices presented in the EMS Implementation Guide for Office Operations include:

- Actions and responsibilities for TPPA employees, and
- Performance objectives, measures, and targets..

4.11 Emergency Preparedness and Response (ISO 14001 Element 4.4.7)

With respect to Environmental reviews and support for transportation projects, 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 the EMS Implementation Guide and presented in detail in DDOT's Environmental Policy and Process Manual. 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 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 the EMS Implementation 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.

Processes for the periodic testing of emergency response actions during project construction and maintenance are described in the EMS Implementation Guide. The **Project Manager**, or designee, is responsible for ensuring that this process is implemented. The **EMR**, or his/her designee, is responsible for periodically reviewing Ward Team Project Manager activities to ensure that the testing process is followed.

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 (refer to Section 4.4 of this Document) are presented in the EMS Implementation Guide. These **procedures 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. 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 the EMS Implementation Guide for Environmental Reviews. 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 and the EMS Implementation Guide. 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 (refer to the definition in Appendix A). 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 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.

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	October 10, 2008	Faisal Hameed

4

ENVIRONMENTAL REVIEW & SUPPORT

4 ENVIRONMENTAL REVIEW & SUPPORT

This Document presents the procedures, processes, and support tools to implement DDOT's Environmental Management System (EMS) for **Environmental reviews and support.** This EMS focus is part of DDOT's overall process for planning, developing, and completing transportation projects and categories of projects. These projects and categories include major transportation construction and reconstruction projects such as bridge reconstruction, bridge rehabilitation, roadway reconstruction, and transit projects, as well as maintenance of the District's transportation infrastructure. Maintenance efforts may not be subject to the formal environmental review, approval, and documentation processes applied to major transportation projects, however, DDOT has included these efforts in this EMS to ensure consistent compliance with requirements.

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 Environmental Review and Support, however, the 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 projects such that these projects also comply with the required laws and other requirements.

2. Scope:

The scope of this chapter and the EMS described herein apply to DDOT's environmental review and support 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

Figure: ISO Process Approach (source: ISO 14001-2004: EMS-Requirements with Guidance. Standards Australia 2004)

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 such that these projects 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.

4.2 Environmental Policy:

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 Director of DDOT. A copy of the environmental policy is available in Chapter 2: DDOT Environmental Policy. The Environmental Management Representative is responsible for maintaining the Policy. 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 responsibility(ies) are described in Subsection 4.7, Communication.

4.3 Planning

4.3.1 Environmental Aspects:

Environmental review and support as part of DDOT's overall process for planning, developing, and completing transportation projects is one of the most important environmental aspects of DDOT. DDOT projects include major transportation construction and reconstruction projects such as bridge reconstruction, bridge rehabilitation, roadway reconstruction, and transit projects, as well as maintenance of the District's transportation infrastructure. Maintenance efforts may not be subject to the formal environmental review, approval, and documentation processes applied to major transportation projects, however, DDOT has included these efforts in this EMS to ensure consistent compliance with requirements. The use of EMS on the environmental review and support activities can provide information and support efforts to ensure fulfillment of environmental commitments and requirements (a goal recognized by FHWA for all DOTs across the US).

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 triennially 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. 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 Environmental review and support process at DDOT is based upon various federal and locals 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.

Following methods are used to ensure that the requirements identification is complete and current:

- TPPA project review staff maintains frequent, routine contact with all agencies that are part of the transportation project review and approval process. These contacts ensure that all current, potentially applicable requirements are identified.

- As performed under the EMS Implementation Guide, each project or category of projects is subject to TPPA and, as applicable, external regulatory agency review and approval.
- "Other requirements" for transportation projects may be found in DDOT policies or identified through interaction with residents of affected communities and with other stakeholders. Such interactions are incumbent within NEPA and DCEPA processes.
- The EMS Implementation Guide contains process maps and instructions to ensure that environmental review and approval requirements are fulfilled. This Guide also provides templates and other tools to capture, track, and ensure fulfillment of identified legal and other requirements.
- DDOT's Environmental Policy and Process Manual provides detailed instructions on the 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 and Environment Branch. The instructions are to be followed by all DDOT personnel involved in transportation project planning, development, design, and construction.

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 following EMS elements provide the structure and process for performing this evaluation:

- Environmental Performance Objectives – the specific goals established by DDOT related to the Environmental Process Procedure;
- Environmental Performance Measures – quantifiable values that can be used, on an ongoing as well as periodic basis, to assess the DDOT's success in meeting its environmental objectives (examples include % conformance with due dates or performance "scores"); and,
- Environmental Performance Targets – performance requirements based on the performance measures that establish a measurable aim for each environmental objective.

The Environmental Management Representative, or his/her designee, periodically collects information for management and DDOT Senior Management review performance in meeting objectives and targets as described in Sections 4.5.1 Monitoring and Measurement, and 4.6 Management Review.

Objectives, measures, and targets have been developed to address the following uses:

- **Overall EMS Performance** – for use by DDOT senior management in evaluating the performance of the EMS; covers all projects in a given period.

- **Project Performance** – Example information that can be used by Ward Team Program Managers, Project Managers, and the TPPA Environmental Program Coordinator to evaluate performance on a day-to-day basis and for specific projects. Selections can be made from this list of examples as deemed appropriate.

These tables include a review schedule for the targets and information on the relevance of each objective to this EMS focus and DDOT's environmental goals.

OVERALL EMS PERFORMANCE

Objective	Measure	Target	Relevance
Incorporate "green" features (i.e., commitments) in transportation projects	Measures include: • # of green street projects • # of green street components • % of project dollars spent on green features • Environmental benefits of features (e.g., lbs of pollutants removed, reduced fuel consumption)	Compile info annually. • At least one project per year • At least 10 features per year • At least 5 percent of total project dollars • Emphasis is on capturing info – once info is collected may set targets a few years later	Demonstrates DDOT's efforts to protect the environment, reduce pollution, and develop projects in a sustainable manner.
Increase use of recycled materials in transportation projects	Quantity and type of material recovered and reused/recycled	At least one recycled material feature per year.	Demonstrates sustainability efforts – reduce resource consumption, waste generation, and space for disposal
Identify environmental requirements for new projects in a timely manner	% of Evaluation Form reviews and concurrences completed within 12 weeks of project review meeting	First year >90% Other years >95% Reviewed semi-annually	Reviews and subsequent concurrences provide basis for timely completion of documents and, in turn, timely, cost-effective completion of projects. Includes submittal as well as review schedules.
Avoid unnecessary rework due to unnecessary, foreseeable changes in documents and info submitted for review	Dollars spent in unnecessarily revising documents and submittals	First year <$10,000 Other years <$5,000 Reviewed semi-annually	Applies to projects in documentation, preliminary engineering, and final design stages. "Unnecessary" can be considered as commitments and requirements that could reasonably be foreseen (i.e., not related to new findings or determinations). Coordination within DDOT and with agencies, and comprehensive evaluation of environmental needs lead to cost and schedule control.

OVERALL EMS PERFORMANCE (cont'd)

Objective	Measure	Target	Relevance
Avoid delays in obtaining permits and approvals (based on DDOT action or inaction)	% of projects in which permits are available at start of construction	First year >90% Other years 100% Reviewed semi-annually.	Reinforces need for communication and coordination within DDOT and with agencies. Timely projects are a result.
	Number of days projects are delayed while awaiting permits and approvals	First year <20 days Other years <5 days Reviewed semi-annually	
	Cost of delays (contractor as well as DDOT costs)	First year <$5,000 Other years <$0 Reviewed semi-annually	
Fulfill all environmental commitments and requirements	% of projects in which commitments are fulfilled as identified in environmental, design, and construction documents	>95% of completed projects	Based on documentation and reviews from Project Managers and EP Staff. This success provides foundation for effective relationships with agencies and the public and, in turn, timely reviews and approvals from these entities.
Avoid costs to address NOVs or other formal notices during project completion	Dollars spent in correcting preventable conditions	First year >$5,000 Other years - $0 Review quarterly	This objective builds reinforces the needs for: coordination within DDOT in identifying and developing requirements; including these requirements in bid and contract documents; and, overseeing implementation of these requirements during project completion.

PROJECT PERFORMANCE EXAMPLES

Objective	Measure	Target	Relevance
EARLY PROJECT REVIEW			
PMs notify Env. Staff of potential projects or categories of projects when included in CLRP, TIP, or STIP	Number/% of projects or categories of projects for which notification provided	At least 90% of projects in the first year of implementation. At least 95% subsequently. Semi-annual review.	Provides a foundation for effective and efficient environmental coordination in subsequent efforts.
Following initial notification, Env. Staff provide timely input on potential environmental considerations	Number/% of projects in which information provided within 4 weeks	At least 95% of all projects when notification received. Semi-annual review	
EFFECTIVE PROJECT PLANNING			
PMs conduct review meetings with Env. Staff	Number/% of projects in which meeting is conducted in 1st qtr of FY	At least 90% in the first year of implementation. At least 95% subsequently. Review performance semi-annually.	Continues to build the foundation established in the preceding objective. Provides the basis for effective and timely project planning, coordination, review, and approval.
PMs submit Environmental Evaluation Forms on time	Number/% of projects with forms submitted on time		
Env. Staff provide timely concurrence	Number/% of Forms reviewed on time		
EFFECTIVE AND EFFICIENT DOCUMENTATION, ENGINEERING, AND DESIGN			
Env. Staff begin coordination with agencies in a timely manner	Number/% of projects in which agency contacts made on time	At least 95% of projects. Review semi-annually.	Continues emphasis on coordination, review, and planning for all environmental considerations to ensure timely and cost-effective delivery of projects.
For CatEx projects, Env. Staff provide timely reviews at 30% and 65% design reviews	Number/% of projects for which reviews completed on time		
PMs complete 106 and 4(f) actions NLT 65% design reviews	Number/% of projects for which actions completed on time		
Env. Staff review and approve documents on time	Number/% of projects for which reviews completed on time		

PROJECT PERFORMANCE EXAMPLES (cont'd)

Objective	Measure	Target	Relevance
EFFECTIVE AND EFFICIENT DOCUMENTATION, ENGINEERING, AND DESIGN (cont'd)			
PMs and Env. Staff avoid unnecessary delays in identifying and planning for environmental needs and considerations	Number/% of projects in which environmental needs and considerations are NOT changes (consider circumstances which could/should be foreseen)	See preceding page	See preceding page
Applicable permits are obtained prior to construction or as needed to avoid delays	Number/% of projects in which permits are available as needed to start construction		
PMs and Env. Staff ensure that bid and contract documents incorporate all requirements, commitments	Number/% of projects in which requirements and commitments incorporated (BEFORE BIDDING)		
Avoid unnecessary rework of environmental documents and other environmental submittals – reviews and approvals before submittal to agencies should avoid, or at least reduce, the need for revision and resubmittal	Dollars spent in unnecessarily revising documents and submittals	No more than $10,000 for all projects in the first year. No more than $5,000 for all projects in the second year and beyond. Review semi-annually.	
CONFORM WITH ENVIRONMENTAL COMMITMENTS AND REQUIREMENTS DURING CONSTRUCTION AND O&M			
Environmental commitments and features completed as planned	Number/% of projects	At least 95% Reviewed semi-annually	Provides the means to demonstrate DDOT's compliance as well as fulfillment of environmental commitments.
Ongoing commitments and requirements are implemented throughout construction	Checklist scores (% correct)	A score of at least 95% on routine evaluations performed by PM/site staff and at least 90% on spot checks performed by EP Staff.	

PROJECT PERFORMANCE EXAMPLES (cont'd)

Objective	Measure	Target	Relevance
CONFORM WITH ENVIRONMENTAL COMMITMENTS AND REQUIREMENTS DURING CONSTRUCTION AND O&M (cont'd)			
Corrective and preventive actions fulfilled as planned	Number/% of actions	At least 95% for corrective actions and 90% for preventive actions. Reviewed quarterly	See preceding page
Environmental commitments maintenance activities performed as planned/ scheduled	Number/% of activities	At least 95%. Reviewed semi-annually	
Environmental requirements are fulfilled during maintenance efforts	Checklist scores	A score of at least 95% on routine evaluations performed by PM/site staff and at least 90% on spot checks performed by EP Staff.	

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." (excerpt from ISO 14001:2004, Element 4.4.1)

DDOT Senior Management will ensure that, within the fiscal constraints imposed of the District's and the Department's budgetary processes, resources are made available to fulfill DDOT's environmental goals as stated in the Environmental Policy and the objectives of this EMS.

This section presents instructions and guidance for performing the requisite environmental consultation and review at each step in the transportation project process. The resources needed, roles, responsibilities and authority is identified in the tables and process flow diagrams. The detailed instructions identify:

- The actions to be performed (*What?*),
- The party responsible for the action (*Who?*),
- The schedule or time frame for the action (*When?*), and
- Guidance and tools to help in performing the action (*How?*).

Following is an illustration of the transportation project process:
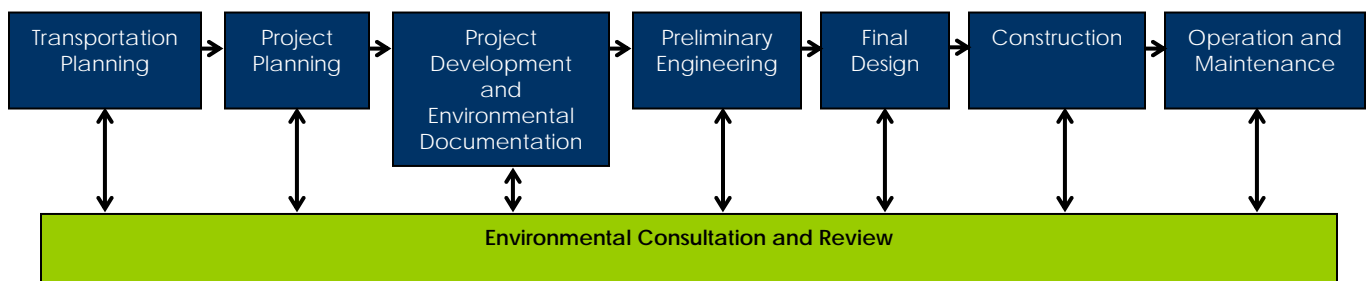
Transportation Planning

	What?	Who?	When?	How?
Environmental coordination during planning	Inform TPPA Environmental Staff (Env. Staff) of potential project (including routine maintenance or construction efforts).	Ward Team Program Manager	When potential projects are first discussed for inclusion in CLRP, TIP, or CIP.	Record includes brief description of project. Env. Staff may also request information. *NOTE:* This action precedes identification of projects in the annual capital budget.
Preliminary environmental needs determination	Review information to identify environmental considerations, including: • Environmental requirements, • NEPA or DCEPA applicability, and • Permit requirements. Include an assessment of: • The time needed to obtain partner agency reviews and approvals, • The effort to prepare submittals, and • Pending determinations that could affect the project. Return determination to PM.	Env. Staff	Perform review within 4 weeks of notification.	Refer to recent similar projects or other projects in the area to determine potential considerations. Maintain record of review.
Project updates	Maintain routine contact to review project status, schedule, and changes affecting environmental determinations.	Program Manager and Env. Staff	Maintain contact as needed – at least every two months.	Maintain records of contacts and determinations.

Project Planning

	What?	Who?	When?	How?
New projects identification	Meet with Environmental (Env.) Staff to review new projects.	Ward Team Program Manager	During first quarter of Fiscal Year (FY).	Applies to all Program Managers
Initial environmental needs determination	Develop preliminary determination of: • Type of environmental document required, • Other environmental documentation required, • Time (based on recent experience) to complete documents, perform internal and external reviews, and obtain approvals.	Env. Staff	During meeting. Follow-up determinations provided within two weeks of the project meeting.	Environmental documents include Cat Ex, EA, EIS, or DCEPA. Other environmental documentation: SHPO coordination, NPS coordination, Section 402 or 404 permits, and section 4(f) evaluations. Review scope, location, and nearby features to assess requirements.
Field review	If needed, conduct field review.	Program Manager	Within 1 month of above meeting.	Notes from Field Review are part of project record.
Environmental Evaluation Form (Green Sheet) preparation	Prepare Part I of the Environmental Evaluation Form (Green Sheet) and forward to Env. Staff. This Form applies to various types of projects as follows: • Federal Obligation – when submitting for Obligation, • Local/ROW Program – as projects move into DDOT Annual Program, and • Routine Maintenance and Construction – when preparing annual budget.	Program Manager	Within six weeks of meeting.	Env. Saff may assist in preparing the Form (Green Sheet). Types of projects include: major construction, renovation, and routine maintenance activities.
Evaluation Form (Green Sheet) review & approval	Review Part I of the Env. Eval. Form (Green Sheet), provide comment or questions (as applicable), prepare Part II of the Form (Green Sheet) and return concurrence copy of the Form (Green Sheet) to Program Manager.	Env. Staff	Return concurrence copy within four weeks of submittal or receipt of requested information.	Ensure accuracy and completeness. Reflect recent or planned actions of reviewing agencies. Incorporate information that may affect project schedule and cost.
FMIS environmental clearance	Use Part II of the Env. Eval. Form (Green Sheet) with concurrence as basis for environmental clearance in FMIS.	Env. Staff	Throughout project.	Documentation of concurrence/clearance is required for FMIS entry.

Project Development and Environmental Documentation

Flow step	What?	Who?	When?	How?
Environmental document start	Begin environmental document. • Develop SOW for consultant. • Depends on project authorization, initial obligation.	Ward Team Program Manager & Env. Staff	Upon authorization and per schedule.	Refer to the information in the *Env. Eval. Form (Green Sheet)* and FHWA guidance.
	Help with SOW and preparing document.	Env. Staff	As requested by PM.	Consider recent efforts and lessons learned.
	Contact review agencies; identify projects that may require review and approval.	Env. Staff	Within <u>one month</u> of beginning document.	Refer to determinations in the *Eval. Form.* Includes SHPO, NPS, and USACE.
Agency coordination	Begin: • Preparation of environmental document, • Identification of features, • Application for permits & agreements.	Project Manager, and assigned staff	Within <u>one month</u> of award, or as needed for project schedule.	Refer to approved *Eval. Form (Green Sheet).* Coordinate contacts with Env. Staff.
Project updates	If needed, update Part I of the *Eval. Form (Green Sheet);* submit *Form* for re-review.	Project Manager	Within <u>two weeks</u> of changes.	Contact Env. Staff to determine if change warrants re-submittal.
	Review, provide comment (as needed), and return concurrence copy of *Evaluation Form (Green Sheet)* Part II.	Env. Staff	Within <u>two weeks</u> of *Form (Green Sheet)* submittal.	Consider impacts; note such effects to the PM.
Agency coordination	With Env. Staff, determine changes in environmental document, documentation, permits, or agreements.	Project Manager	Within <u>two weeks</u> of identifying changes.	Changes may affect needs, requirements, or schedule.
	Inform involved agencies of changes.	Env. Staff	Within <u>two weeks</u> of review.	Maintain record of contacts and decisions.
Evaluation Form (Green Sheet) updates review	Review and approve documents (EA, EIS, CatEx), and Section 106, 4(f), and 404 evaluations, and other documentation before submittal to Counsel, Director, FHWA	Env. Staff	<u>EIS - within four weeks. EA, and others – within two weeks.</u>	*NOTE:* Ongoing review and coordination should minimize the need for substantive changes to documents and documentation.
Completion of environmental determinations	If not previously completed, complete Section 106, 4(f), and 404 evaluations/determinations.	Project Manager	<u>Prior to 65% design review.</u>	Env. Staff support may be requested in Agency contacts and coordination.

Preliminary Engineering

	What?	Who?	When?	How?
Cat Ex confirmation	For CatEx, review initial environmental clearance to confirm determination – update the Eval. Form (Green Sheet).	Project Manager & Env. Staff	At BOTH <u>30% and 65% design</u> reviews.	Refer to initial *Environmental Eval. Form (Green Sheet)*.
	For CatEx projects, • Approve the updated *Form (Green Sheet)* OR identify the additional studies. • Forward approved *Form (Green Sheet)* or need for additional studies to PM.	Env. Staff	Within <u>2 weeks</u> of 65% design review.	Review project information and current NEPA practices to verify CatEx determination.
	NOTE: **PS&E funds will NOT be obligated without Section 106 or Section 4(f) clearance.**			
Permit applications	Prepare and submit permit applications. Ensure that permits and agreements are on-hand or available when needed.	Project Manager	As needed to accommodate the project schedule.	Coordinate agency contacts, submittals, and scheduling with Env. Staff.
	NOTE: **PS&E funds may not be obligated without the necessary permits and agreements or documented assurance that permits and agreements will be provided as needed to complete the project as planned**.			
	Maintain information on environmental requirements and determinations required for the project.	Project Manager	Throughout project.	*NOTE:* A sample *Environmental Commitments and Requirements Summary* is provided in the Implementation Tools.
Project updates and commitments/ requirements record	Review determinations and project documentation to ensure conformance with requirements, policy, and directives. Provide findings and recommendations to Project Manager.	Env. Staff	Periodically throughout course of project.	Maintain documentation of findings and recommendations. Maintain routine contact with Project Manager.

Final Design

Permits on-hand			

What?	Who?	When?	How?
Obtain permits and agreements or document that permits and agreements will be available for construction.	Project Manager	As obtained and in accordance with project schedule.	Coordinate efforts with Env. Staff.
Review environmental documents and documentation, and authorize project to proceed through bid and construction.	Env. Staff and FHWA management	Per schedule, budget, and applicable criteria.	-----
Ensure that environmental requirements, commitments, and instructions are included in design, bid and contract documents.	Project Manager and Env. Staff	Throughout Final Design and per project schedule.	May use the *Commitments and Requirements Summary* provided in the Implementation Tools.

FHWA coordination

Environmental needs included in bid, contracts info.

Construction

Instructions when <u>Verification and Conformance is Based upon Completion of a Commitment.</u>

	What?	Who?	When?	How?
Verification of completion	Verify and document that the commitment/feature has been completed.	Project Manager and Env. Staff	<u>Upon completion.</u>	Documentation may include a statement and/or photographic support. Maintain documentation in the administrative record.
Corrective actions	If verification not confirmed: • Identify actions, assign responsibility, and establish schedule to complete the commitment/feature, OR • Identify actions and contact agencies to identify acceptable measures.	Project Manager and Env. Staff	Within <u>two weeks</u> of determining non-completion.	Coordinate agency contact with Env. Staff. Document resolution in record.
Agency coordination	Implement completion actions.	Assigned Site Staff	<u>In accordance with action schedule.</u>	-----
Verification of completion	Verify completion of the commitment/feature.	Project Manager and Env. Staff	Within <u>two weeks</u> of receipt of completion notification.	***NOTE:*** The Environmental *Requirements Fulfillment Checklist* (refer to the Implementation Tools) can be used as a record of fulfillment.

(flow diagram left column): Verification of completion → If not verified → Corrective actions → Agency coordination → Verification of completion

Construction (cont'd)

Instructions when <u>Ongoing Assessment of Conformance is Required or in the Best Interest of DDOT</u>.

Examples include: *stormwater management, site or sensitive area protection, or noise and dust suppression practices.*

	What?	Who?	When?	How?
Conformance assessments	Develop assessment schedule and requirements.	Project Manager and Env. Staff	As applicable based on requirement.	Refer to permits, regulations, and DDOT initiatives.
	Assess job site practices and control measures to ensure conformance.	Project Manager and Env. Staff	Per assessment schedule and requirements.	*NOTE:* The *Requirements Fulfillment Checklist* (refer to the Implementation Tools) can be used to assess conformance. Maintain a record of assessments.
Non-conformance	Conduct periodic assessments of site practices and measures to ensure conformance.	Project Manager and Env. Staff	During construction.	*NOTE:* See the *Requirements Fulfillment Checklist.*
Corrective and preventive actions	Identify corrective and preventive actions to address non-conformances and other findings. Assign responsibility and schedule for completing the action/s.	Project Manager and Env. Staff	<u>Immediately (if significant)</u>, OR within <u>5 working days</u> of assessment.	Record the actions.
	Implement corrective and preventive actions.	Assigned Site Staff		-----
	Verify fulfillment of corrective and preventive actions.	Project Manager and Env. Staff	Upon completion.	Maintain documentation of completion.

Operation and Maintenance

	What?	Who?	When?	How?
Conformance assessments	Identify commitments and requirements to be: • Monitored – requiring periodic examination or sampling (e.g., assessment of vegetation); or • Maintained – features (e.g., catch basins or sediment control ponds) that require ongoing maintenance to function as intended. Determine associated actions and schedules.	Project Manager and Env. Staff	As identified during course of project	Capture information as commitments are agreed upon. ***NOTE:*** Use the *Environmental Commitments and Requirements Summary* (refer to the Implementation Tools) to capture and maintain this information.
	Fulfill requirements as identified in preceding action.	Assigned staff	In accordance with schedule and assessment needs.	-----
Non-conformance	Review practices and measures to ensure conformance. Provide assessment results to Project Manager.	Staff identified as responsible in preceding actions.	In accordance with schedules identified in preceding actions.	***NOTE:*** The *Requirements Fulfillment Checklist* (refer to the Implementation Tools tab) can be used to assess conformance.
	Conduct periodic assessments to evaluate conformance.	Project Manager and Env. Staff	To ensure day-to-day conformance.	***NOTE:*** Refer to *Requirements Fulfillment Checklist.*
	If needed, identify corrective and preventive actions to address findings and assign responsibility and schedule for action/s.	Project Manager and Env. Staff	Immediately (if significant), OR within 5 working days of assessment.	Record the actions.
Corrective actions	Implement corrective and preventive actions.	Assigned Staff	In accordance with action schedule.	-----

Implementation Tools:

This section presents the following items that are referenced in and can be used in following the Instructions.

- Environmental Evaluation Form (i.e., Green Sheet),
- Sample Commitments and Requirements Summary, and
- Sample Commitments and Requirements Fulfillment Checklists.

District Department of Transportation Project Development & Environmental Evaluation Form (Part I)			
1. Project Name: **Previous Study/Work(if any):**			
2. Project Location: 			
3. Funding Type: **Federal [ ]** **Local [ ]**			
4. Project Description: 			
5. Project Type: Administrative Work [ ] **Planning[ ]** **Environmental Document [ ]** **PE [ ]** **PS&E [ ] Construction [ ] Maintenance [ ]**			

6. Project Information:	**Yes**	**No**	**Notes**
a. Were DDOT administrations and stakeholders involved in Project Scoping/planning?			
b. Were other agencies (FHWA, SHPO, DOE, NCPC, CFA, NPS, USACE, EPA, 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 wildlife (fish/animal/plant)?			
l. Does the project involve ROW acquisition or relocation?			
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 (including construction noise)?			
p. Is there any known controversy about the project?			
q. Does the project affect the travel pattern?			
r. Does the project impact the land use and growth patterns?			

7. Other Comments (use addition pages if needed): 		
9. Prepared by (Project Manager): 	**Phone:**	**Date:**

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

1. PROJECT INFORMATION

Project Name:

Previous study (if any):

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)

1.a. 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		
(4) Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action;		

	Yes	No
(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.		
1.b. Is the project? Check any of the following that apply [abbreviated list from 23 CFR771.117 (c)	**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. Transfer of Federal Lands		
5. Installation of noise barriers to existing publicly owned buildings		
6. Landscaping		
7. Emergency repairs		
8. Acquisition of scenic easement		
9. Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals or railroad warning devices.		
10. Improvements to existing rest areas and truck weigh stations.		
11. Related to Ridesharing activities		
12. Bus and rail car rehabilitation		
13. Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons		
14. Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.		
15. 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.		
16. Track and rail bed maintenance and improvements when carried out within the existing right-of-way.		
17. Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.		
18. Promulgation of rules, regulations, and directives.		
If the answer to any is "Yes", then Project qualifies as a Cat EX (CE).		
1.c. Is the project? Check any of the following that apply [abbreviated list from 23 CFR771.117 (d)	**Yes**	**No**
19. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).		
20. Highway safety or traffic operations improvement projects including the Installation of ramp metering control devices and lighting.		
21. Bridge rehabilitation, reconstruction or replacement or the construction of grade separation to replace existing at-grade railroad crossings.		
22. Transportation corridor fringe parking facilities.		
23. Construction of new truck weighs stations or rest areas.		
24. 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.		

	Yes	No
25. Approvals for changes in access control.		
26. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation		
27. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities		
28. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements)		
29. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes		
30. 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.		
2- Does the project affect any historic district, street, or property?		
3- Does the project take a part or whole of the historic property or area?		
Additional notes:		
If the answer to 2 or 3 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 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:		
1- Does the project add lanes or ramps to the existing facility?		
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:		

	Yes	No
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. This class includes, but is not limited to: (1) On-premise signs; (2) Small parking lots (fewer than 50 vehicles); (Reference: DCMR 7202.2(g))		

	Yes	No
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	Sec106 determination	NCPC Review	NPDES (Sec 402) Permit
Environmental Justice			

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

D. Prepared by:

	Tele#:	Date:

E. Environmental Clearance by (Name):

	Tele#:	Date:

Sample Environmental Commitments and Requirements Summary

Commitments and Requirements Summary Sheet

Project Name:
Project Number:
Commitment Type: Document ( )   Permit ( )   Other ( )

Type of Document: EIS ( )   EA ( )   CE ( )

Stage	Commitment/Description
Planning	Brief Description of the Commitment
	Commitment ID
	Commitment completed as required (Check if yes; include name and date)
	Commitment Source
	Commitment Owner
Design	Commitment forwarded to Design
	Design acknowledges receipt of commitment
	Design acknowledges incorporation of commitment into plans, specs, & bid documents
Construction	Commitment reviewed at construction start
	Commitment review acknowledged
	Commitment completed as required
	Ongoing oversight performed as required
Maintenance	Description of maintenance required for the commitment
	Maintenance unit informed of requirement
	Maintenance unit acknowledgement of receipt
Monitoring	Description of monitoring required for the commitment
	Designated unit/individual informed of commitment
	Designated unit or individual acknowledges receipt of commitment
Agency Coordination	Agency informed of commitment as incorporated into Design/Construction documents
	Agency acknowledges completion of commitment as described

Sample Commitments and Requirements Fulfillment Checklists

AT FINAL DESIGN (refer to commitments/requirements summary and project documents for details)

Refer to the Commitments and Requirements Explanations (at the close of this subsection) for information to help in completing this checklist.

Use Yes, No, or N/A.

	Yes	No	N/A	Comment
Stormwater Management Controls	___	___	___	
Erosion and Sedimentation Controls	___	___	___	
Section 404, 402, and 401 requirements – describe requirements for project	___	___	___	
Rivers and Harbors Act section 9 and 10 requirements – describe requirements for project	___	___	___	
Historic/archaeological requirements designations – describe specific requirements for project	___	___	___	
Park, Recreation, Wildlife Area requirements – describe requirements for project	___	___	___	
Noise impact requirements – describe specific requirements/limitations for project	___	___	___	

Sample Commitments and Requirements Fulfillment Checklists

<u>DURING CONSTRUCTION</u> (refer to commitments/requirements summary and project documents for details)

Refer to the Commitments and Requirements Explanations (at the close of this subsection) for information to help in completing this checklist.

Use Yes, No, or N/A.

	Yes	No	N/A	Comment
Commitment/requirement implemented and maintained throughout construction (requires periodic checks)?				
Stormwater Management Controls	___	___	___	
Erosion and Sedimentation Controls	___	___	___	
Section 404, 402, and 401 requirements – describe requirements for project	___	___	___	
Rivers and Harbors Act section 9 and 10 requirements – describe requirements for project	___	___	___	
Protection maintained throughout construction (requires periodic checks)?				
Historic/archaeological requirements designations – describe specific requirements for project	___	___	___	
Park, Recreation, Wildlife Area requirements – describe requirements for project	___	___	___	
Practices/features followed (requires periodic checks)?				
Noise impact requirements – describe specific requirements/limitations for project	___	___	___	

Sample Commitments and Requirements Fulfillment Checklist

AT PROJECT COMPLETION – DURING OPERATION AND MAINTENANCE (refer to commitments / requirements summary and project documents for details)

Refer to the Commitments and Requirements Explanations (at the close of this subsection) for information to help in completing this checklist.

Use Yes, No, or N/A.

	Yes	No	N/A	Comment
Removed or maintained as appropriate?				
Stormwater Management Controls	___	___	___	
Erosion and Sedimentation Controls	___	___	___	
Have commitments/requirements identified in project documents been fulfilled?				
Historic/archaeological requirements designations – describe specific requirements for project	___	___	___	
Park, Recreation, Wildlife Area requirements – describe requirements for project	___	___	___	

Sample Commitments and Requirements Fulfillment Checklists

Commitments and Requirements Explanations

Commitment	Design	Construction	Completion
Stormwater Management Controls	In design and bidding documents?	Implemented and maintained throughout construction (requires periodic checks)?	Removed or maintained as appropriate?
Erosion and sedimentation Controls	In design and bidding documents?	Implemented and maintained throughout construction (requires periodic checks)?	Removed or maintained as appropriate?
Section 404, 402, and 401 requirements – describe requirements for project	In design and bidding documents?	Implemented and maintained throughout construction (requires periodic checks)?	N/A
Rivers and Harbors Act section 9 and 10 requirements – describe requirements for project	In design and bidding documents?	Implemented and maintained throughout construction (requires periodic checks)?	N/A
Historic/archaeological requirements designations – describe specific requirements for project	In design and bidding documents?	Protection maintained (requires periodic checks)?	Project document requirements fulfilled?
Park, Recreation, Wildlife Area requirements – describe requirements for project	In design and bidding documents?	Protection maintained (requires periodic checks)?	Project document requirements fulfilled?
Noise impact requirements – describe specific requirements/limitations for project	In design and bidding documents?	Practices/features followed (requires periodic checks)?	N/A

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.

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 Manager	X	X	X	X	X	X	X	X
Project Engineer	X	X	X	X	X	X	X	X
Ward Planner	X	X	X	X	X	X	X	X
Construction Inspector, Engineering Technician	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.

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;
- Parties responsible for presenting the training;
- The personnel who receive the training; and,
- The schedule for initial and refresher training.

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 – the EMR may be assisted in these efforts by the Ward-based teams.   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. 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).

4.4.4. Documentation :

DDOT's EMS documentation includes:
- DDOT's Environmental Policy (as described in Chapter 2)
- The scope of the EMS (as described in Chapter 3)
- The main elements of the EMS (as described in Chapter 3 and section 4.3 & 4.4 of this chapter)
- Documents and records (including forms & checklists provided in section 4.4.1) that will be collected and documented to ensure the effective implementation and operation of the EMS.
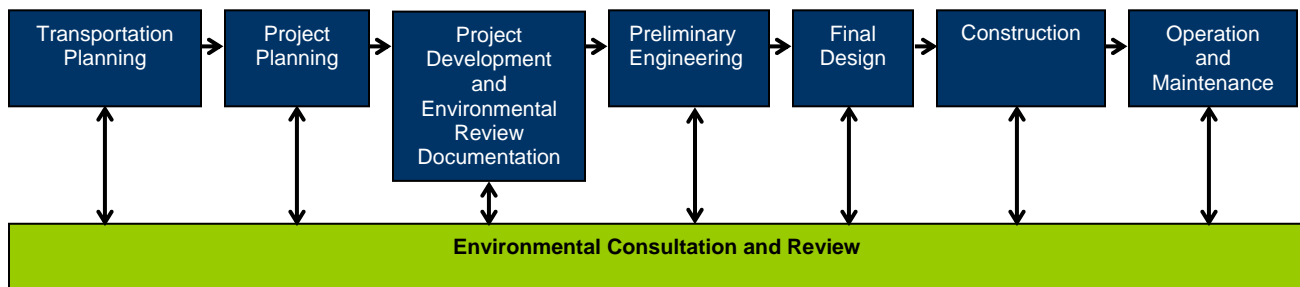
4.4.5. Control of Documents:

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 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.

4.4.6. 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 (as identified in the Guide) follow the procedures identified. Following are overviews of the process flow and/or procedures for the significant aspects/EMS focus.

Transportation Project Process Overview

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

Environmental Consultation and Review

Transportation Planning process map:

Key Elements of Transportation Planning
- Planning and Needs Identification performed as part of CLRP, TIP, and CIP activities; and,
- Environmental consultation that guides and supports these project efforts.

Coordination at CLRP, TIP, and CIP

As projects are identified for inclusion – the Ward Team Program Manager/ Planner informs environmental staff (Env. Staff) of potential projects

Consultation

Env. Staff identify potential:
- environmental requirements,
- NEPA or DCEPA applicability, permit requirements, and
- time needed for agency reviews and approvals

Status/Update

Program Manager/ Planner maintains contact to review status of projects

To Project Planning

Ongoing Consultation and Support

Env. Staff provide comment, input, and, as requested, support

Project Planning Process Map:
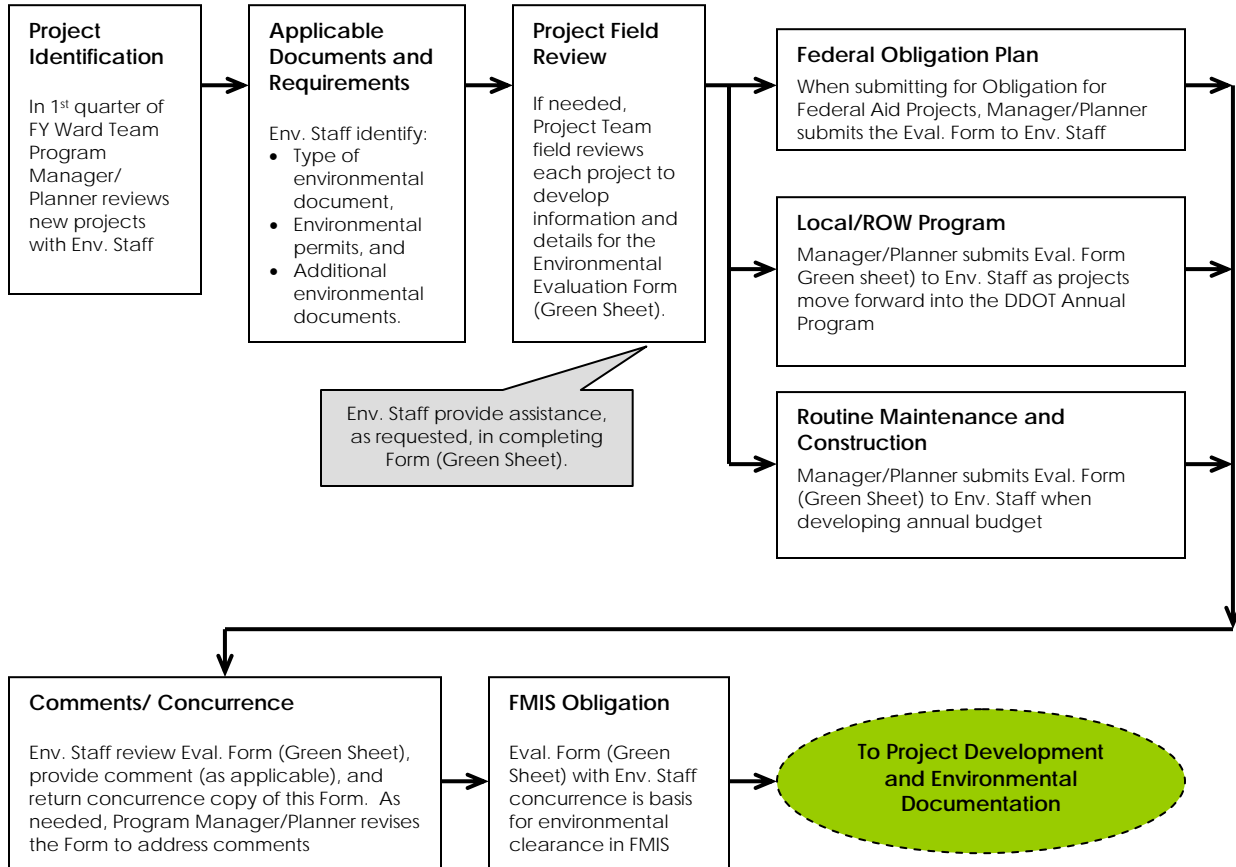
Key Elements of Transportation Planning
- Planning and Needs Identification performed as part of CLRP, TIP, and CIP activities; and,
- Environmental consultation that guides and supports these project efforts.

Project Identification

In 1st quarter of FY Ward Team Program Manager/ Planner reviews new projects with Env. Staff

Applicable Documents and Requirements

Env. Staff identify:
- Type of environmental document,
- Environmental permits, and
- Additional environmental documents.

Project Field Review

If needed, Project Team field reviews each project to develop information and details for the Environmental Evaluation Form (Green Sheet).

Env. Staff provide assistance, as requested, in completing Form (Green Sheet).

Federal Obligation Plan

When submitting for Obligation for Federal Aid Projects, Manager/Planner submits the Eval. Form to Env. Staff

Local/ROW Program

Manager/Planner submits Eval. Form Green sheet) to Env. Staff as projects move forward into the DDOT Annual Program

Routine Maintenance and Construction

Manager/Planner submits Eval. Form (Green Sheet) to Env. Staff when developing annual budget

Comments/ Concurrence

Env. Staff review Eval. Form (Green Sheet), provide comment (as applicable), and return concurrence copy of this Form. As needed, Program Manager/Planner revises the Form to address comments

FMIS Obligation

Eval. Form (Green Sheet) with Env. Staff concurrence is basis for environmental clearance in FMIS

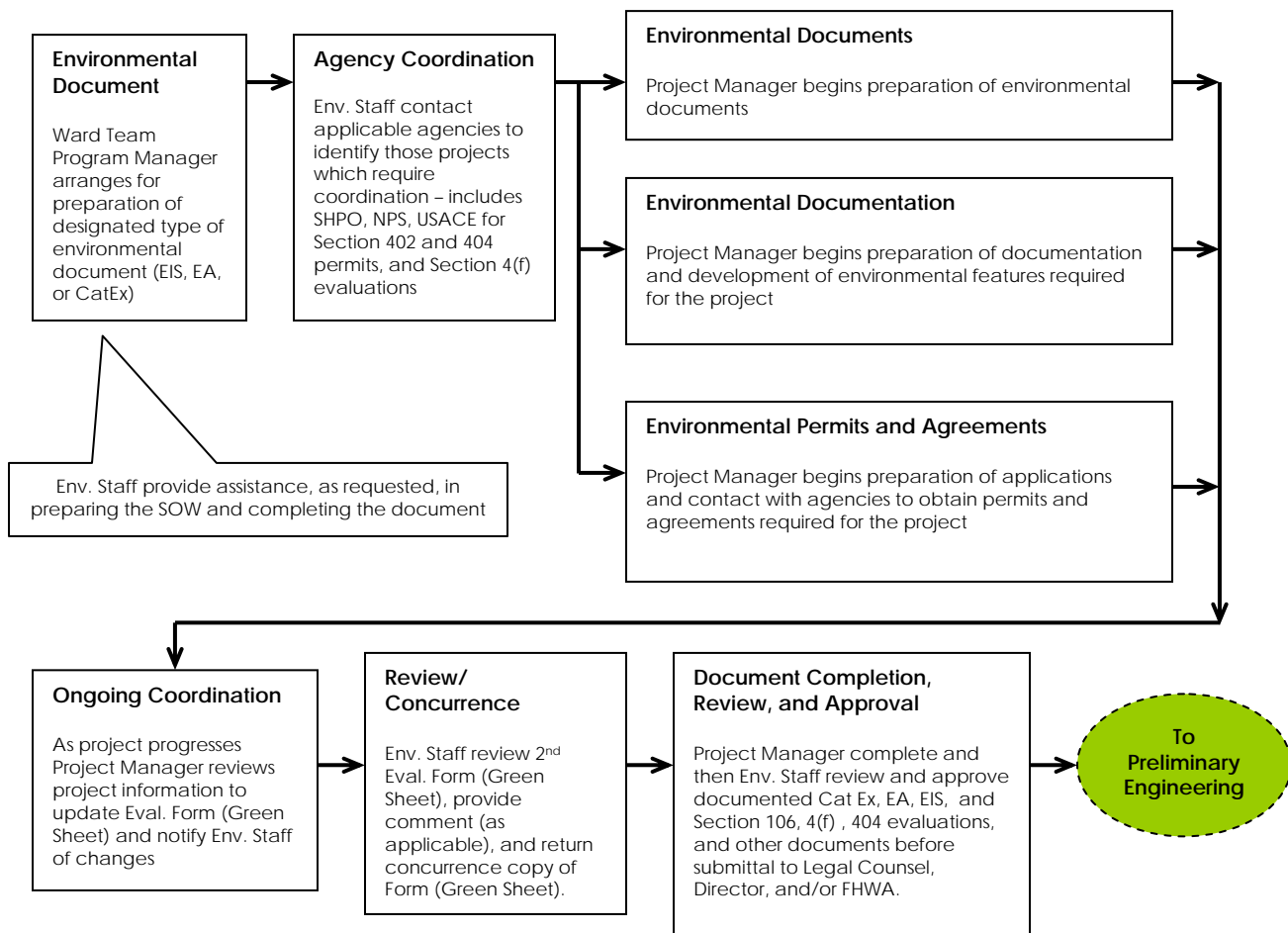**To Project Development and Environmental Documentation**

Project Development & Environmental Documentation Process Map:

Key Elements of Environmental Documentation
- Begin preparation of environmental document,
- Develop other required environmental documentation,
- Begin permit coordination, and
- Provide environmental review and support.

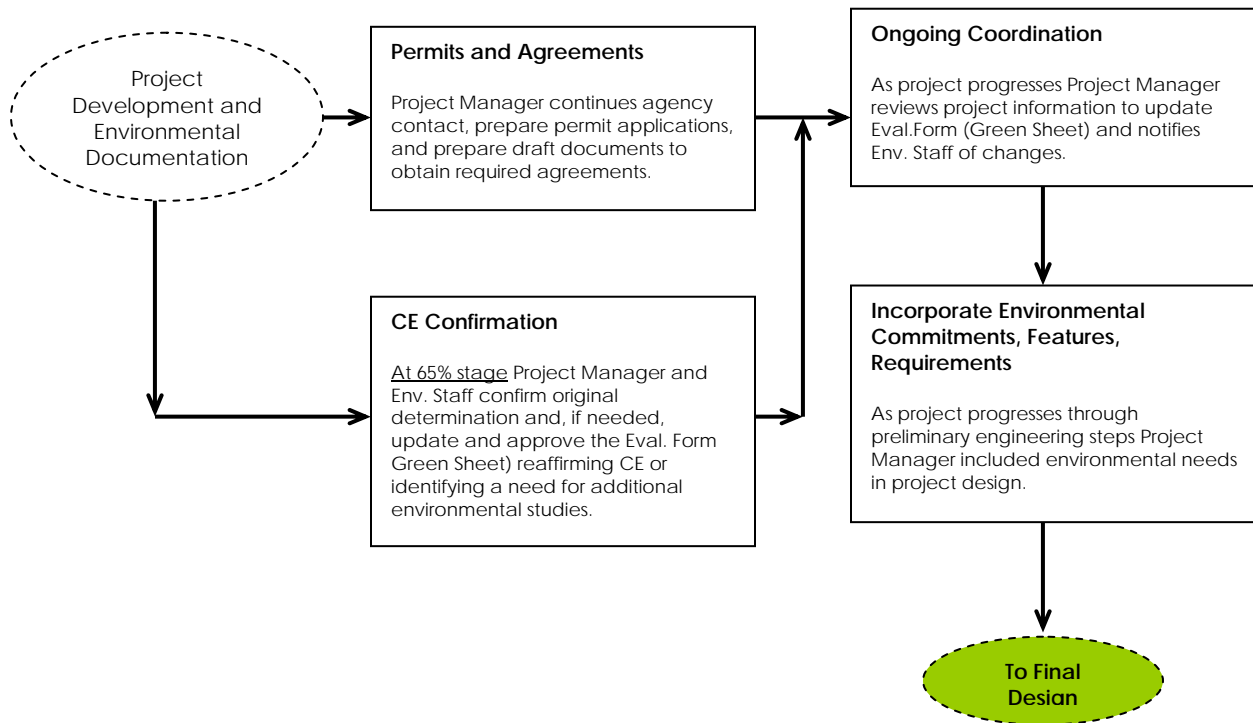**Environmental Documents** – Includes EIS, EA, CatEx, DCEPA decisions.

Environmental Documentation – Includes Section 4(f) evaluations, SHPO coordination, NPS coordination, and Section 402 or 404 permits. This information supports decisions in environmental documents, and identifies project features and commitments.

Environmental Document

Ward Team Program Manager arranges for preparation of designated type of environmental document (EIS, EA, or CatEx)

Agency Coordination

Env. Staff contact applicable agencies to identify those projects which require coordination – includes SHPO, NPS, USACE for Section 402 and 404 permits, and Section 4(f) evaluations

Env. Staff provide assistance, as requested, in preparing the SOW and completing the document

Environmental Documents

Project Manager begins preparation of environmental documents

Environmental Documentation

Project Manager begins preparation of documentation and development of environmental features required for the project

Environmental Permits and Agreements

Project Manager begins preparation of applications and contact with agencies to obtain permits and agreements required for the project

Ongoing Coordination

As project progresses Project Manager reviews project information to update Eval. Form (Green Sheet) and notify Env. Staff of changes

Review/ Concurrence

Env. Staff review 2nd Eval. Form (Green Sheet), provide comment (as applicable), and return concurrence copy of Form (Green Sheet).

Document Completion, Review, and Approval

Project Manager complete and then Env. Staff review and approve documented Cat Ex, EA, EIS, and Section 106, 4(f) , 404 evaluations, and other documents before submittal to Legal Counsel, Director, and/or FHWA.

To Preliminary Engineering

Preliminary Engineering Process Map:

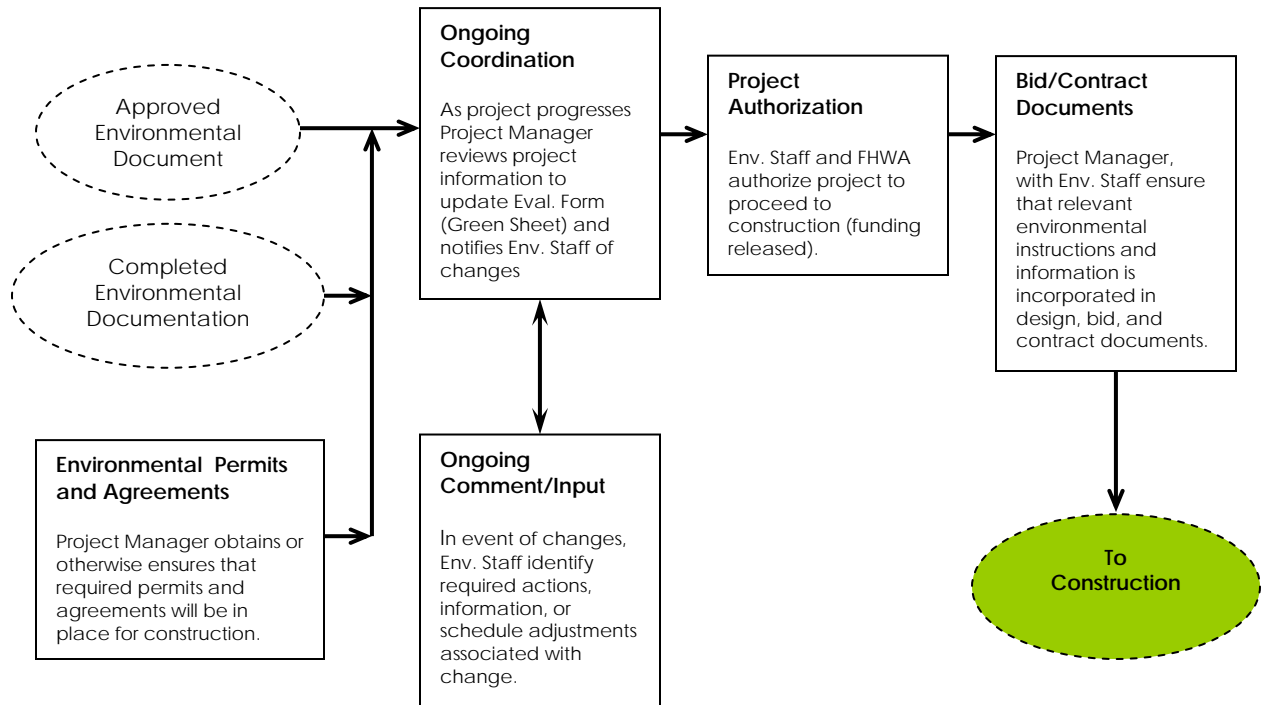**Key Elements of Preliminary Engineering**
- Applies to Pre-design Design Scoping, and the 30% and 65% design plan reviews;
- Develop and incorporate environmental features;
- Continue permit process and agency coordination;
- Re-evaluate environmental clearances if initially determined to be Categorical Exclusion; and
- Provide environmental review, concurrence, and support.

Project Development and Environmental Documentation

Permits and Agreements

Project Manager continues agency contact, prepare permit applications, and prepare draft documents to obtain required agreements.

CE Confirmation

At 65% stage Project Manager and Env. Staff confirm original determination and, if needed, update and approve the Eval. Form Green Sheet) reaffirming CE or identifying a need for additional environmental studies.

Ongoing Coordination

As project progresses Project Manager reviews project information to update Eval.Form (Green Sheet) and notifies Env. Staff of changes.

Incorporate Environmental Commitments, Features, Requirements

As project progresses through preliminary engineering steps Project Manager included environmental needs in project design.

To Final Desian

Final Design Process Map:

Key Elements of Final Design
- Applies to 100% plan documents and reviews (also includes authorization for maintenance activities);
- Incorporate environmental features and requirements in project and bid documents;
- Obtain applicable permits;
- Authorize project for bid and construction; and
- Provide environmental review, concurrence, and support.

Approved Environmental Document

Completed Environmental Documentation

Environmental Permits and Agreements

Project Manager obtains or otherwise ensures that required permits and agreements will be in place for construction.

Ongoing Coordination

As project progresses Project Manager reviews project information to update Eval. Form (Green Sheet) and notifies Env. Staff of changes

Ongoing Comment/Input

In event of changes, Env. Staff identify required actions, information, or schedule adjustments associated with change.

Project Authorization

Env. Staff and FHWA authorize project to proceed to construction (funding released).

Bid/Contract Documents

Project Manager, with Env. Staff ensure that relevant environmental instructions and information is incorporated in design, bid, and contract documents.

To Construction

Construction Process Map:

Key Elements of Construction
- Incorporate environmental requirements and instructions in plans, bid, and contract documents;
- Implement environmental requirements, commitments, and features;
- Verify conformance and implementation;
- Take actions, as needed, to ensure conformance;
- Provide environmental assistance and support; and
- Accept completed project.

Completed Commitments/Features

As commitments/ features are completed Project Manager and Env. Staff document completion.

Response

If required, Project Manager and Env. Staff identify and assign actions to complete the commitment/feature as required or coordinate efforts with agencies to determine acceptable measures.

Assigned site staff complete actions.

Completion Review

Project Manager and Env. Staff conduct site visit to verify completion of actions and agreed-upon measures.

Ongoing Compliance and Conformance Assessment

Throughout construction Project Manager and Env. Staff assess and document conformance.

Correction and Prevention

If needed, Project Manager and Env. Staff identify actions (including schedule and responsibility) to correct and prevent non-conformances and other findings

Corrective actions fix the condition at hand.

Preventive actions can keep the condition from recurring.
Assigned site staff complete the actions.

Completion Review

Project Manager and Env. Staff verify that the corrective and preventive actions have been completed.

Administrative Record

Project Manager maintains project administrative record including conformance and completion review results.

To Operation & Maintenance

Operation and Maintenance Process Map:

Key Elements of Operation and Maintenance
- Develop maintenance plans and budgets that reflect environmental commitments and requirements;
- Maintain and monitor, as applicable, environmental features and requirements;
- Verify conformance;
- Take actions, as needed, to ensure conformance; and
- Provide environmental assistance and support.

Commitments to be Maintained or Monitored

Project Manager and Env. Staff identify commitments and requirements to be maintained (requiring ongoing maintenance) or monitored (requiring periodic examination).

Maintenance Requirement

Monitoring Requirement

Maintenance Coordination

Upon project completion, Project informs maintenance personnel of requirement.

Monitoring Coordination

Upon project completion, Project and Env. Staff arrange for monitoring as required.

Assessment and Verification

Project Manager and Env. Staff periodically assesses maintenance and monitoring actions and results to verify conformance with commitments/ requirements.

Correction and Prevention

If needed, Project Manager and Env. Staff identify actions (including schedule and responsibility) to correct and prevent non-conformances. Assigned staff complete these actions.

Completion Review

Project Manager and Env. Staff verify that the corrective and preventive actions have been completed.

Administrative Record

Project Manager maintains project administrative record including conformance and completion review results.

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.

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.

5

TPPA OFFICE OPERATIONS

5

TPPA OFFICE OPERATIONS

This Document presents the procedures and support tools to implement DDOT's Environmental Management System (EMS) to conserve resources in the conduct of TPPA's office operations. 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 TPPA Office Operations, however, the 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 TPPA 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 TPPA Office Operations.

3. Definitions:

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

4. Environmental Management System

Figure: ISO Process Approach (source: ISO 14001-2004: EMS-Requirements with Guidance. Standards Australia 2004)

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 TPPA 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.

4.2 Environmental Policy:

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 Director of DDOT. A copy of the environmental policy is available in Chapter 2: DDOT Environmental Policy. The Environmental Management Representative is responsible for maintaining the Policy. 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 responsibility(ies) are described in Subsection 4.7, Communication.

4.3 Planning

4.3.1 Environmental Aspects:

Office Operations within TPPA is one of the most important environmental aspects of TPPA within DDOT. These office operations include printing, purchasing office supplies, computer use, and electricity 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 triennially 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 collects information for management and DDOT Senior Management review performance in meeting objectives and targets as described in Sections 4.5.1 Monitoring and Measurement, and 4.6 Management Review.

The table on the next page identifies objectives, measures, and targets that have been developed to assess and demonstrate TPPA's progress in fulfilling its office resouce conservation commitments.

Objective	Measure	Target	Relevance to DDOT's Goals for Environmental Excellence
Save Energy	Measures include: • # and % of lights, PCs turned off • Power savings associated with equipment turned off • Carbon emissions associated with power savings	Compile info semi-annually. • 100% off (based on periodic after-hours). • Equate targets with power savings and carbon reductions.	Demonstrates DDOT's efforts to protect the environment and use resources efficiently.
Conserve Resources	Quantity of paper. Quantity of office products Consider also – the typical energy consumed and wastes generated associated with reduced quantity of paper.	In FY 08 and 09 reduce consumption by 5% vs. baseline. By FY10 reduce consumption by 10% vs. baseline. Maintain this level at the least – consider further reductions. Compile the information annually. *NOTE:* requires establishing a baseline for FY07 and/or 08.	
Recycle	% participation. Types and approximate quantities of recycled and recovered materials.	Based on routine surveys of offices – recycle and recover 100% of recyclables (e.g., no recyclables in waste).	
Alternative Modes of Travel	% of trips for TPPA business.	70% of trips. Compile the information semi-annually.	
Environmentally Sustainable Products	% energy-save products % green products	100% printers, PCs and laptops 20% green office products	

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." (excerpt from ISO 14001:2004, Element 4.4.1)

DDOT Senior Management will ensure that, within the fiscal constraints imposed of the District's and the Department's budgetary processes, resources are made available to fulfill DDOT's environmental goals as stated in the Environmental Policy and the objectives of this EMS.

Following are the resources, roles, and responsibilities for implementing the EMS on TPPA Office operations.

Resource	TPPA Staff Roles & Responsibilities
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 the unit and the monitor off at the end of the day.

Resource	TPPA Staff Roles & Responsibilities
Conserve Resources	▪ Use e-mail instead of printing if possible. ▪ Use black & white printers. ▪ Print/copy only the sections needed by each person. ▪ 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. ▪ Use e-mail and electronic communications instead of

sending, requesting, or receiving hard copies.

Resource	TPPA Staff Roles & Responsibilities
Recycle	- Place bottles, cans, and paper in the recycle bins. - Return printer and copier toner cartridges for recycling. - Recycle all paper, glass, plastic, and cans. - Order and use paper with at least 30% post consumer content. - Tell contractors and consultants to use paper with at least 30% post consumer content.

Resource	TPPA Staff Roles & Responsibilities
Use alternative Modes of Travel	Use alternative modes such as public transit or a bicycle when traveling for TPPA away from Reeves Center.

Resource	TPPA Staff Roles & Responsibilities
Use Environmentally Sustainable Products	- Request/buy Energy Star Electronic Equipment - Request/buy recycled content paper. - Request/buy "green" products

Oversight and Review Responsibilities:

Additional responsibilities for the EMR, or his/her designee, include:

- Periodically (i.e., at least every other month) survey office operations to assess conformance with the resource conservation practices;
- Identify, as needed based on survey findings, actions to maintain and enhance conformance with the resource conservation practices;
- Prepare semi-annual reports on performance in meeting objectives and targets for the TPPA Associate Director;
- Identify and communicate to the TPPA Associate Director additional opportunities, if practical, to conserve resources in the conduct of office operations; and,
- Provide training or develop other materials (e.g., e-mails, posters, cards, or handouts) to communicate resource conservation results and information to TPPA employees.

The Associate Director of TPPA is responsible for supporting and providing employee direction to follow TPPA's practices to conserve resources.

4.4.2   Competence, Training, and Awareness:

Participation in and support for TPPA's Office Operations EMS practices are not driven traditional meeting room or on-line instruction programs. Instead this participation and support is driven through routine, frequent communications provided by the EMR, or his/her designee. Communications and training materials include, but are not limited to:

- General distribution e-mails,
- Wallet/badge cards identifying the resource conservation practices,
- Posters and handouts, and
- E-mails presenting performance surveys and results.

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

- Reminders to follow existing resource conservation practices and responsibilities,
- New or additional resource conservation practices and responsibilities,
- A review of resource conservation achievements, and
- Actions needed to maintain or improve resource conservation performance improvement.

To ensure consistency in practice and adherence on a day-to-day basis, communications must be varied and the message kept "fresh." To these ends, new communications will be provided to all TPPA employees on at least a quarterly basis. In addition, new ore newly assigned employees will be informed (using existing communications materials) of TPPA's resource conservation practices within two weeks of assignment.

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

4.4.3 Communication:

Internal and external communication related to TPPA Office Operations EMS will be provided by already established TPPA 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 TPPA. The internal communications will be used to ensure that employees are aware of the following:

- The Environmental Policy;
- TPPA 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 :

DDOT's TPPA Office Operations EMS documentation includes:

- DDOT's Environmental Policy (as described in Chapter 2)
- The scope of the EMS (as described in Chapter 3)
- The main elements of the EMS (as described in Chapter 3 and section 4.3 & 4.4 of this chapter)
- Documents and records (including forms & checklists provided in section 4.4.1and 4.4.6) 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 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.

4.4.6. Operational Control:

A number of operational controls have been developed for the TPPA Office Operations EMS. These operational controls, processes, and tools for conducting these operations are described in this section. As noted previously in this Document, the Environmental Management Representative, or his/her designee, is responsible for maintaining and distributing this document.

Inspections/assessments checklists for assessing and controlling the TPPA Office Operations EMS are provided on the following pages. These page provide perform-ance checklists with operational controls described as the actions/requirements on these tables. These inspections/assessments should be performed by the Environmental Management Representative (EMR), or designee.

CONSERVATION PERFORMANCE INSPECTIONS

INSPECTIONS TO BE PERFORMED TWICE A MONTH IN THE MORNING BEFORE MOST STAFF ARRIVE OR IN THE AFTERNOON AFTER MOST STAFF LEAVE.

ACTION/REQUIREMENT: Turn off desk and office lights at the end of the day.

OBSERVATION (e.g., number of desks or offices where lights are off or on):

CORRECTIVE/PREVENTIVE ACTION (describe actions to ensure that lights are turned off):

ACTION/REQUIREMENT: Turn off PCs, monitors, printers, and copiers at the end of the day.

OBSERVATION (e.g., number of units that are off or on):

CORRECTIVE/PREVENTIVE ACTION (describe actions to ensure that equipment is turned off):

ACTION/REQUIREMENT: Recycle paper, cans, bottles, and toner cartridges.

OBSERVATION (e.g., evidence that personnel are using or not using recycle containers – describe as an assessment of level of participation):

CORRECTIVE/PREVENTIVE ACTION (describe actions to ensure that recyclables are placed in designated bins or otherwise collected for return):

INSPECTION DATE & TIME:

INSPECTED BY:

NOTE: Records of inspections to be maintained by EMR.

CONSERVATION PERFORMANCE ASSESSMENTS

ASSESSMENTS TO BE PERFORMED ONCE A MONTH.

ACTION/REQUIREMENT: Use 100% recycle content paper.

OBSERVATION (e.g., is only recycle paper available – examine supplies and review orders, review recent sample contractor deliverables to ensure recycle content paper is used):

CORRECTIVE/PREVENTIVE ACTION (describe actions to ensure that recycle content paper is available and used):

ACTION/REQUIREMENT: Print and copy in black and white, and on double-sided pages to the fullest extent possible.

OBSERVATION (e.g., check printer logs to determine the number of pages printed black and white versus colored):

CORRECTIVE/PREVENTIVE ACTION

ACTION/REQUIREMENT: Reduce paper consumption.

OBSERVATION (review paper order records for the last month and compare with previous three months and year-ago period)

CORRECTIVE/PREVENTIVE ACTION (describe actions to reduce paper consumption):

INSPECTION DATE & TIME:

INSPECTED BY:

NOTE: Records of inspections to be maintained by EMR.

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 TPPA 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 TPPA Office Operations EMS are given in this section. 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 following performance repor-ting tables should be used for monitoring and measurement. In addition the checklists provided in section 4.4.6 can also be used.

TPPA Office Operations EMS Performance Reporting

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 100% recycle 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 http://greeniits.pbwiki.com/review+energy+costs+of+paper+consumption):
  - o New – 17 watts per sheet
  - o 20% recycle – 16 watts per sheet
  - o 100% recycle – 12 watts per sheets (34.5 kilowatt hours per box)
- Assume (for the purposes of this discussion) use of a "short" ream of paper – 480 sheets. As opposed to 500 sheets in a "long" ream.

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. 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. 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 TPPA business. Target is 70%.
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 8.81x10^{-3} metric tons CO2/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% participation in office recycling program.
Reporting Frequency: Semi-annually.
Reporting Based on Assessments: Use the Performance Assessment checklist to estimate the level of employee participation against this objective. For example, an occasional minimal amount of recyclable material in trash receptacles over a six month assessment period could be characterized as >95% participation. Substantial amounts of recyclables in trash receptacles would be characterized as a lower level of participation (the actual characterization would be up to the EMR, or designee, based on an assessment of the amounts disposed in trash receptacles vs. recycle bins).

Overall Potential Savings:

Reporting Based on Assessments: Refer to the above assumptions.

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.

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 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) 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 annual) reviews of DDOT's (TPPA 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 (TPPA 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. Checklists provided in the Appendix can be used for reporting to management for review.

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 by the year 2020.

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. May be additional to or supplanted by NEPA.

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.

STIP – Statewide Transportation Improvement Program. The TIP (see below) is related to and developed to address this requirement. The STIP covers a period of at least three years and is a financially constrained program which is not limited to the period of the authorization.

TIP – Transportation Improvement Program. Prepared each year by the National Capital Region Transportation Planning Board (TPB), it outlines the staged development of the area's financially-constrained Long-Range Transportation Plan (CLRP), with priority projects selected for programming by the TPB, the states, and the transit agencies presented in the first year of the six-year program.

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

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APPENDICES

Improving the Environment –TPPA Checklist

Use this checklist as a reminder of what to do to enhance the environment and to occasionally check on your own actions – strive for 100% conformance.

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 the unit and the monitor off 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 by each person. ▪ 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	▪ Place bottles, cans, and paper in the recycle bins. ▪ Return printer and copier toner cartridges.
Use alternative Modes of Travel	▪ Use public transit or a bicycle when traveling for TPPA away from Reeves Center.
Use Environmentally Sustainable Products	▪ Request/buy Energy Star Electronic Equipment ▪ Request/buy recycled content paper. ▪ Request/buy "green" products

EMR or designee, uses this spreadsheet to report on resource conservation performance to senior management. Information is based on inspections and assessments performed by EMR, or designee.

MONTH: _____

Action/Objective	Assessment
Use Less Power- Turn off Office Lights Use Less Power- Turn off Desk Lights Use Less Power- Turn off PC's and monitors Use Less Power- Turn off Printers	Kwh impact CO2 Impact # on (per month) (lbs./month)
Recycle Paper, Bottles, Cans	Estimated % participation
Use Less Paper*** Use 100% recycled paper*** Use public transit/bicycles for TPPA travel****	# of boxed used Boxes of 100% recycle used # of trips # of trips using public transit or bicycles

NOTES:
* The goal is all lights and equipment turned off. The impacts would be subtracted from the total potential benefits to the benefits realized.
** To achieve and maintain % reduction in paper use, target is to use less than 28 boxes per 6 mo.

TPPA Environmental Reviews and Support Performance Reporting, and Corrective/Preventive Action Summary

The following information can be compiled annually by the EMR, or designee, to report on EMS performance to DDOT senior management. Contact Project Managers for assistance. This template can also be used to track and assess performance throughout the year.

Reporting Period: _____

Objective							Summarize corrective & preventive actions	Summarize Senior Management review, actions and responsibilities
Incorporate "Green" Features in transportation Projects	# of Green Projects	Description	# of Green components	Description/s	Dollars spent on green features ($ x 000)	Expected environmental benefits (describe)		

Comply with all applicable environmental laws and regulations	# of projects needed to comply	# of projects complied	# of projects that completed the required evaluations/documentations in a year	# of projects delayed	Savings in time and Cost		
Avoid delays in obtaining permits (based on DDOT action or inaction)	# of projects needing permits for construction	# of projects in which delays occurred by not having permits	Contractor charges ($) associated with delays	# of days projects delayed			
Avoid Notice of Violation (NOV) or other non conformance	# and description of NOV's or other formal notifications.	Cost of correcting conditions for NOVs/notifications.					
Fulfill all environmental commitments.	% of projects/year in which all environmental commitments have been fulfilled.	% of projects which did not meet commitments			Savings in time and Cost		

TPPA Environmental Reviews and Support Performance Reporting, and Corrective/Preventive Action Summary