

ADDITIONALLY SELECTED TECHNOLOGIES 2009

Electronic Environmental Study Form and Project Commitment Tracking (EESF)



Overview

The process by which an environmental project is carried out involves much more than a simple handshake and promise. The following two paragraphs taken from the *AASHTO Practitioner's Handbook #4* explain the challenges faced by tasked agencies.

As part of the environmental review process for a complex project, a project sponsor may make hundreds of specific commitments to avoid, minimize, and mitigate environmental impacts. Some of these commitments may be made voluntarily; others may be required as permit conditions. Regardless of the original source, it is important to ensure that commitments made during the environmental review process are implemented during design, construction, and maintenance.

Effective implementation of environmental commitments requires established procedures for communicating and tracking these commitments through to implementation and maintenance. For a major project, a systematic approach typically involves the creation of an environmental commitments database. It may also involve the designation of an environmental lead who is given responsibility and authority to oversee compliance with the environmental commitments. For some projects, the implementation effort may also include a formal process for ensuring regular coordination with permitting agencies.

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Tying the Process Together

The Utah Department of Transportation (UDOT) has been using an electronic environmental study form to track project commitments since 2006. The technology is a subsystem of a bigger system called the electronic Program Management (ePM) System. ePM is an Oracle® database that keeps track of all components necessary for delivery for UDOT's projects.

The system is comprised of two components: The environmental study form and the project commitments database. The environmental study form is an online form that is used to produce federal categorical exclusion documents and state environmental studies. Environmental document preparers answer specific questions for each resource that is evaluated to determine the level of project impact. The environmental study form captures any commitment made to mitigate for impacts. The second part of the system, the project commitments



Environmental roadway projects are often complex and may make hundreds of specific commitments to avoid, minimize, and mitigate environmental impacts.

database, tracks and manages the status of implementation of each commitment made on a project. The two parts are intertwined because the mitigation commitments captured on the environmental study form are automatically fed into the project commitment database. This is important as project commitments may come from other sources than the environmental documents and are often a result of the environmental process.

"Environmental commitments may come from project managers, right-of-way staff, UDOT managers, or designers. Having all the commitments made in a central depository allows every team member to know about them."

Rebecka Stromness
Environmental Program
Manager, Utah DOT

What are Environmental Commitments?

A commitment is any action that is intended to avoid, minimize, or mitigate environmental impacts. It can also be defined as any action that is required to be implemented as a condition of project approval, or has been committed to by the project sponsor.

Examples are:

Project Design—Use of a retaining wall rather than a fill slope in order to minimize impact on adjacent wetland. Use of native plant species when revegetating disturbed areas.

Construction—Use of equipment that has been retrofitted with technologies to minimize emissions of mobile source air toxins.

Mitigation—Construction of replacement wetlands.

Stewardship—Retrofitting of existing roadways with stormwater management facilities.

Maintenance—Ongoing management of a stormwater facility to a certain level of sedimentation control.

Benefits of Using the EESF System

- Eliminating “lost” commitments helps state DOTs maintain credibility with federal and local officials as well as with the public.
- Approximately 10 hours of labor may be saved on a project of average complexity.
- Technology can be used with an existing Oracle database using Forms and Reports.
- Preparation of environmental studies is simplified.

Nationwide Implementation

Since 2006, UDOT has prepared approximately 700 environmental studies using this technology, with at least 50 users (UDOT staff and consultants). In order for other states to implement the system, the organization would need to have an Oracle database and Oracle Forms and Reports for the user interface. Additional modifications may be needed. An existing database structure is available along with PowerPoint® training guides. Documentation of the screens and how they work is also available.

Resource	Phase	Source	Description	Complete
AIR	CONST	NEPA	Requirements outlined in Standard Specification 01572 titled "Dust Control and Watering" will be followed.	N
CUL	CONST	NEPA	MOA stipulations include: ILS documentation, photographs and engineering drawings will be submitted to the Utah Div	N
IS	CONST	NEPA	Supplemental Specification 029265 titled "Invasive Weed Control" will be included in the contract documents and outli	N
OTHER	PE	PUBLIC INVO	Contractor will prepare a monthly newsletter to keep business owners informed as to how the project is progressing	N
PALEO	CONST	NEPA	2005 UDOT Standard Specification Section 01365, Part 1.9 "Environmental Clearance by the Contractor" and Part 1.11	N
RELOC	RAW	ROW	Don't move the Smith Family until the school year ends. (Around June 2009)	Y
TE	CONST	NEPA	1. Work will be restricted to the non-nesting season of the ospreys and the non-roosting season of the bald eagles;	N

Project Commitments Screen This screen shows the data that are collected for each commitment. The upper portion shows the specific data collected for every commitment. The lower portion shows a summary of all the commitments. The source column shows if it came from the NEPA document or another source such as ROW or Public Involvement.

“Prior to implementation of this technology, preparers were not keeping up to date with the latest environmental rules and regulations. They would do their own thing, and often do more than was necessary. The environmental study form is now the only acceptable method for preparing environmental documents in UDOT.”

Rebecka Stromness
Environmental Program Manager, Utah DOT

Resources:

AASHTO Practitioner’s Handbook #4

<http://environment.transportation.org/pdf/programs/PG04.pdf>

Utah DOT website

<http://www.udot.utah.gov/main/f?p=100:1:0>

Electronic Program Management (UDOT website)

<http://www.udot.utah.gov/main/f?p=100:pg:395058786698756:::1:T,V:716>