Environmental Commitments

Project and Program Delivery Manual
Chapter #
Chapter Title
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Introduction

As part of the environmental review process of any project, the Location and Environment Bureau (LEB) may identify one or more actions necessary to mitigate or reduce (restore, abate, enhance, avoid, and/or replace) impacts to the human and natural environment. These actions are referred to as Environmental Commitments (ECs). It is important to ensure that commitments made during the environmental review process are implemented and honored during design, construction, and maintenance.

The Iowa Department of Transportation (Iowa DOT) identifies and implements ECs for projects as needed to remain good stewards of the land, historic resources, and the environment in the state of Iowa, and to remain in compliance with multiple governing bodies or agencies with jurisdiction. This work is developed with our Federal and State Agency partners to ensure compliance with the National Environmental Policy Act (NEPA) and other environmental codes, laws, and regulations.

This chapter describes the standard operating procedure for how ECs are identified, generated, and then tracked through the life cycle of a project.

Objectives

Outline established procedures for communicating and tracking ECs. This goal will be achieved through the following processes:

- Aid in understanding what ECs are and where to find them.
- Outline how LEB utilizes Special Provisions (SP) and other tools to communicate ECs
- Communicate how LEB tracks compliance of ECs through the project life cycle

Process

When is an Environmental Commitment Required?

An EC is required when project effects can reasonably be assessed as having potential to impact an environmental resource that has been provided protection under federal or state laws.

What is an Environmental Commitment?

As stated above, ECs are any agreed-upon actions to mitigate or reduce (restore, abate, enhance, avoid, and/or replace) impacts to the human and natural environment.

The following list represents the most common ECs that LEB will identify and require as part of the environmental review. These ECs are managed through the design process, into letting, pre-construction, and construction. It is important to note that National Pollutant Discharge Elimination

System (NPDES) permits are not an LEB EC, NPDES work is completed through the Construction and Materials Bureau:

- **Asbestos Abatement –** When a highway project requires the demolition of a structure it is reviewed by the Regulated Materials manager for any asbestos containing material. If it is identified as containing asbestos, a qualified contract service, through consultation with LEB, will be hired to safely remove, transport, and dispose of all asbestos containing materials prior to demolition.

- **Contamination Monitoring -** To reduce the potential for exposure to environmental contaminants present within the project area, the Regulated Material Manager will develop a Site-Specific Materials Management Plan (SSMMP). The purpose of the SSMMP is to give project specific instructions to the contractor for: assisting in controlling any inventory of hazardous materials, how to monitor and inspect site operations, and how to train employees to respond to an emergency, among other details. This is accomplished through working with qualified contract services in partnership with LEB consultation.

- **Date Restrictions/Winter Tree Clearing** –The Protected Species team will review the environment surrounding the project site to determine if suitable tree habitat is present within a 1,000 feet radius (or more depending on the work to be done). If habitat is present, and the standard specifications do not cover the specific date restrictions needed, an EC will be written. The Protected Species team manages these activities with the United States Fish and Wildlife Services (USFWS) and Iowa Department of Natural Resources (Iowa DNR).

- **Low-height Earthen Berm/Tree Plantings** – Constructing a low-height earthen berm as part of a project can significantly reduce the effects of highway traffic noise on residential neighborhoods near busy highways. The decision to construct a low-height, earthen berm as part of a highway project will be made in consultation with the districts and be dependent on results of a noise study completed by the Noise, Air and Vibration Specialist.

- **Noise Reducing Pavement** – A quiet pavement type such as open graded friction courses (OGFC) or asphalt and diamond ground Portland concrete cement (PCC) will be considered for installation as part of a project if the Noise, Air and Vibration Specialist determines that the impacts to adjacent noise sensitive areas (i.e. neighborhoods, parks, etc.) are more than minimal.

- **Outstanding Iowa Waters (OIW) -** The Water Resources team will work with the Iowa DNR to develop a plan that manages activities to minimize impacts to OIW when work is proposed in the water, and there is potential for impacts. The plan will outline specific instructions of what can and cannot be done in the water.

- **Paddling Routes** – Any bridge project with activities that could cause harm to a recreationalist along the designated water trail or paddling route (i.e. the potential for falling debris or obstruction of the waterway) requires coordination with Iowa DNR to provide safety signage instructions in the final construction plans. The NEPA team will work with the Bridges and Structures Bureau (BSB) to identify when signage is necessary and then BSB will coordinate with the Iowa DNR.

- **Park and Recreational Impact** –When the recreational attributes or features of a property are impacted to the extent that mitigation is required (i.e. a portion of a golf course is incorporated into a transportation corridor or the playground will now be in closer proximity to a busy street), the NEPA team will work with the owner with jurisdiction (OWJ) to incorporate a site improvement to offset the impact of the project. For example, the EC could include a redesign of the golf course layout, or a new playground in a better location to offset those impacts.

- **Permanent Exclusionary Fencing (or Small Animal Barrier)** – The Protected Species team will review the project survey area for the presence of any protected species or potential habitat of those species. If it's determined that there is a likelihood of species or habitat present, and there is risk the species could suffer long-term negative effects from the transportation infrastructure, the Protected Species team will outline the instructions for installing permanent small animal barrier (fencing). The protected species team manages these activities with the USFWS and Iowa DNR.

- **Protected Species Relocations** – If the Protected Species team confirms the presence of any protected species, and measures to avoid the species are not possible, the team will determine if a relocation is feasible. Through consultation with the USFWS and the Iowa DNR, the Protected Species team will work with a qualified contractor to create a plan to safely remove the species from the potential for harm or harassment (i.e. relocate muscles to a nearby and adequate location).

- **Restricted Areas** – This common EC is used by LEB teams to delineate an area in or near the project survey area to protect an environmental asset (i.e. a historic structure, an endangered plant species, wetland, etc.) from any potential damage caused by the project construction activities. These areas are often restricted with temporary exclusionary fencing (see more below) to be removed after the project concludes. Whenever appropriate, LEB will manage the safeguarding of these resources with the appropriate governing agency.

- **Species Survey** – If the presence of a protected species is suspected within a project survey area, the Protected Species team will create an EC to take sampling closer to the start of construction to confirm the presence and concentration of the species. If found, the next steps will be determined, and the EC could be modified based on consultation with USFWS and Iowa DNR to mitigate any potential adverse effects.

- **Temporary Exclusionary Fencing** – This is a type of restricted area specific to the presence of a protected species that cannot be relocated, or it is determined that construction activities will not harass the species present, but it is necessary to keep them from entering the area. One type of temporary fencing used is continuous silt fencing which requires the inspection of the fence locations and the search for wildlife caught along the fence. The Protected Species team manages these activities with the USFWS and Iowa DNR.

- **Topeka Shiner** – Special conditions for working in Topeka shiner watersheds are documented in the standard specification of all contracts. When those standard specifications do not meet the mitigation requirements, an EC will be written to document the extra steps needed (ex. block netting prior to construction). The Protected Species team manages these activities with the USFWS and Iowa DNR.

- **Vibration Monitoring** – When a structure that is eligible, or potentially eligible, for listing to the National Register of Historic Places (NRHP) and is close enough in proximity to the project that it will not be directly impacted, but could potentially be impacted by vibration from construction, the Cultural team will request vibration monitoring for the structure. Occasionally, this is accomplished through working with qualified contract services in partnership with LEB consultation.

- **W05 Mitigation Submittal to Other Bureaus** – A W05 submittal occurs when LEB submits mitigation plan sheet(s) to design engineers for inclusion in project letting plans. The W05 submittal provides a method for smaller, on-site mitigation measures to be incorporated into the overall roadway or bridge/culvert project so that a separate contract for mitigation construction is not necessary. W05 submittal features are compensatory mitigation features that are required either by the United States Amy Corps of Engineers (USACE), the USFWS, or Iowa DNR through applicable permitting or consultation processes. Examples of common

W05 submittals may include the design/details for such features as in-stream grade control structures, in-stream aquatic habitat features, or vegetative plantings.

How Environmental Commitments are communicated and monitored

Lifecycle of an EC in LEB

LEB identifies ECs during project development, tracks them in Masterworks (EC tracker explained below), and then communicates the EC to all appropriate parties through email. After final design, ECs that require a special provision (SP) or a plan note are included in the contractor package and monitored through the end of the project. LEB staff will stay in communication with district staff and others to continue to answer questions and record the date when the EC has been completed in Masterworks.

How are ECs Identified and Communicated?

- **Cultural Resources:** Project concepts and survey areas are reviewed for potential impacts to historic or cultural resources. ECs that are identified are communicated with GIS and images if appropriate through email to project designers to ensure project needs are met while cultural resources are managed appropriately. ECs are physically and spatially delineated for safeguarding during construction activities and shared with project designers to include during project development. With the EC identified and relayed to design, consultation with project stakeholders outside of LEB (i.e. SHPO, Tribes, etc.) is held to illustrate the measures being taken to ensure steps are clearly communicated to all parties.

- **Water Resources:** Project concepts and survey areas are reviewed for potentially impacted water resources, anticipated permitting requirements, and potential mitigation needs. Instances that may trigger an EC for Section 404 purposes include impacting a high-quality wetland and/or stream, or if the impact to a water resource would cause additional permitting and/or mitigation requirements that otherwise could be avoided by implementing the EC. Any water resource designated as an area for avoidance or minimization is physically and spatially delineated for safeguarding during construction activities and communicated with project designers through email. ECs are displayed in geospatial data, on plan sets, and physically delineated with exclusionary measures at the project location or are identified in Special Provisions.

- **NEPA and Paddling Routes:** Project concepts and survey areas are reviewed for potential impacts to water trails and paddling routes in accordance with the programmatic agreement with the Federal Highway Administration (FHWA) and Iowa DNR. The BSB will initiate coordination with the Iowa DNR through the Iowa DNR PERMT portal. Once the Iowa DNR responds with plan sheet recommendations, the BSB will add them to ProjectWise for final plans, and LEB will include them with the NEPA documentation.

- **Protected Species:** The Protected Species team reviews the survey area for the presence of species, or their habitats, identified by state and federal authorities as endangered or threatened. If either are present, the team then communicates and proposes a plan to protect the species or habitats from harm or harassment from the project activities through consultation with USFWS and/or Iowa DNR. Once agencies provide concurrence, the Protected Species team will create and communicate the EC with other bureaus and consultants through email. These are documented through a memo and submitted to agencies upon completion of the project.

- **Regulated Materials:** During a regulated materials review, properties and/or sites that are, or may be, contaminated with hazardous materials are identified so that the presence of these materials may be factored into Iowa DOT's decisions regarding structures or construction activities. Communication of the findings is summarized in a memorandum to all interested

parties within the Iowa DOT, as well as documented in accordance with state legislation and regulations.

Lifecycle of an EC after LEB

A SP or a plan note for an EC will be created to assure that the EC is being monitored throughout the design process, into letting, pre-construction, and construction.

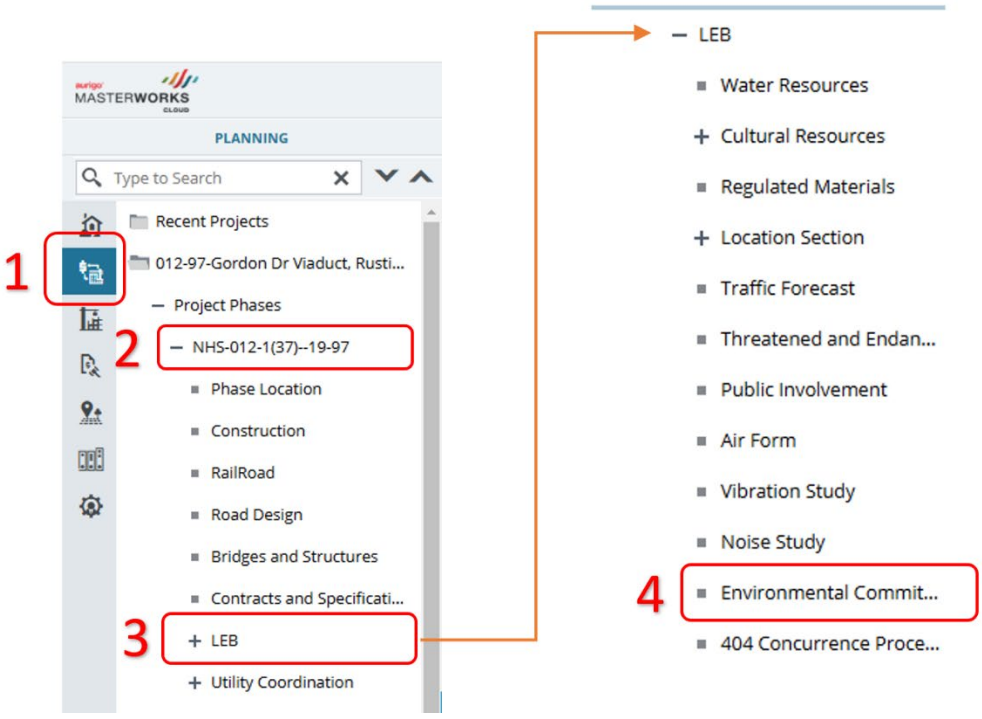
- LEB will write the SP or request the plan note (PN) be added, and work with the appropriate project contacts (bureau, district, consultant, etc.) and designers.
- Contract documents will include SPs and be addressed separately for all construction bidders to review (an SP does not need to be attached to a construction item).
- LEB will review contract documents to ensure SPs and plan notes are included and adequately addressed.
- After the contract is awarded, LEB may attend the pre-construction meeting to establish communication and answer any questions about the EC.

EC tracking in Masterworks

Masterworks allows for the tracking of ECs alongside project scheduling and other project administrative functions, including through construction. Key steps in this process include:

- Each LEB team records the ECs in Masterworks with consistent detail
- LEB team members may join pre-construction meetings when necessary
- Maintaining contact with district staff (RCE, CE, Inspection Staff)
- LEB team records the EC as completed once the project is finished

To determine if a project has an EC, locate the area in Masterworks where they are recorded:



Measuring Success

Measuring success with ECs focuses on Iowa DOT's responsibilities to environmental resources and laws that protect those resources. Masterworks is the tracking tool to monitor the EC to completion. Key steps in this process include:

- ECs are marked complete by the LEB team who initiated the EC.
- Iowa DOT sharing close-out information (monitoring reports, supporting documents) with partner agencies and organizations (United States Army Corps of Engineers, USFWS, State Historic Preservation Office, and Tribes/Nations).
- Iowa DOT can provide data-driven reports on ECs to FHWA.

Who to Contact with Questions

Refer to the SP or plan note in question for specific contact information, or for general questions about ECs, locate your LEB district resource specialist at the following website: https://iowadot.gov/ole/about/staff#552832656-national-environmental-policy-act-nepa

Non-Compliance with ECs

Compliance with environmental commitments is not just a matter of good stewardship; compliance is a legal requirement. The consequences of non-compliance can be severe. Under FHWA regulations, environmental commitments that are incorporated into a project during the NEPA process are required to be implemented as a condition of FHWA's approval of the project. Failing to implement those commitments can jeopardize the availability of federal funding for the project or future projects. In addition, violations of permit conditions can lead to substantial penalties, litigation, and work stoppages, as well as cause long-term damage to relationships with resource agencies.[1]

[1] American Association of State Highway and Transportation Officials (AASHTO). (2024). *Tracking compliance with environmental commitments/use of environmental monitors*. Center for Environmental Excellence by AASHTO. https://environment.transportation.org/resources/practitioners-handbooks/tracking-compliance-with-environmental-commitments-use-of-environmental-monitors/