**Natural Environment Study (Minimal Impacts) Template**

**August 2022**

**Caltrans Division of Environmental Analysis, Office of Biological Studies**

**Template Introduction and Instructions**

Pages 1-3 contain guidance text that should be omitted from the final document.

This Natural Environment Study (Minimal Impacts) (NES (MI)) template is based on the June 29, 2015 version approved by the Biological Consultancy Group (BCG). The BCG is an advisory group of senior-level biologists representing the interests of all Caltrans’ districts and regions. Edits were made to this template to meet Americans with Disabilities Act (ADA) standards in June 2020. Questions and comments regarding this template should be forwarded to Jennifer Osmondson, Division of Environmental Analysis Office of Biological Studies at 916-208-5590 or [Jennifer.Osmondson@dot.ca.gov](file:///\\ct.dot.ca.gov\dfshq\Environmental\HQ_BIOLOGY\Templates\NESMI%20Revisions\NESMI%20Revisions%20Spring%202020%20ADA\Jennifer.Osmondson@dot.ca.gov) or to any member of the BCG.

This is a shortened version of the Natural Environment Study (NES) template. Please see the NES and Biological Assessment (BA) templates for additional information, including format and style guidance. These templates can be found on the [Forms and Templates Page](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/forms-templates#faqs) of the [Standard Environmental Reference (SER)](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser). Please see SER [Volume 3, Chapter 2](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-3-biological-resources/ch-2-natural-environment-study) for additional information regarding the content to be included in this template.

This template should be used for projects that are:

* Of limited scope and impact to natural resources.
* Minor A or B projects.
* Not ordinarily involving listed species except for “no effect’ and “may affect, not likely to adversely affect” determinations.

If you need the detail of the NES, use that template.

All BA, NES, and NES (MI) documents prepared for projects on the State Highway System will be prepared by or reviewed by an Associate Environmental Planner (Natural Science), or by a Senior Environmental Planner with experience as an Associate Environmental Planner (Natural Science). See [Quality Control Guidance for Standard Biological Technical Documents and Reports](https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/qc-guidance-a11y.pdf) for additional guidance. The NES is not acceptable or allowable as the BA. A NES describes the existing biological environment and how the project alternatives affect that environment. A NES or NES (MI) must be prepared for all projects and serves as the technical basis for statements made in the environmental document, concerning plants, animals, and natural communities occurring in the biological study area. The NES summarizes technical documents such as focused species studies, wetland assessments, and biological assessments related to effects on biological resources in the Biological Study Area (BSA) for use in the environmental document.

The Biologist will work with the Environmental Generalist/Planner on the data gathering for this study as it will be overlapping and should be consistent. The purpose and need should be obtained from the Environmental Generalist/Planner. The level of analysis shall be commensurate with the level of the project.

The [SER](http://www.dot.ca.gov/ser/) provides conventions and guidance for the preparation of content relevant to this document. See also SER [Acronyms and Abbreviations List](https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/main-acronym-abbrev-a11y.pdf) and [Glossary](https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser-glossary-a11y.docx). Please see SER [Volume 3, Chapter 2](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-3-biological-resources/ch-2-natural-environment-study) for additional information regarding the content to be included in this template.

Document standards:

* Italicize scientific names [*Arundo donax*].
* If acronyms are used, use all three terms for a species at the first occurrence in the document, e.g., Giant reed (GR) [*Arundo donax*]. Use only the acronym after the first occurrence.
* If acronyms are not used, use the common name and the scientific name at the first occurrence, e.g., Giant reed [*Arundo donax*]. Use only the common name after the first occurrence.

Standards used in this template are designed to comply with Caltrans ADA policies. Colored text is used to convey meanings throughout the template and in some cases the sections of colored text are preceded with the definition of the colored text in parenthesis to convey the meaning of the colored text to users relying on screen reading software. The definitions of the colored text and examples of the use of preceding definitions in parenthesis are below.

Text key:

* Black text = required headings.
* Blue text = (Guidance text) – guidance text and instructions to be considered and deleted from the final document.
* Red text = (Boilerplate text) – boilerplate text to be inserted into document, as appropriate.
* Purple text = (Sample text) – sample text that can be used and edited in document, as appropriate.
* Green text = (Local Assistance guidance text) – special guidance text for Local Assistance projects (local roadway projects off the State Highway System using federal-aid funds) to be deleted from the final document.
* Underlined text (regardless of text color) = Internet web links.

**The text in this document is guidance unless it is a heading (headings should be retained and used) or is otherwise specified.**

This page is used for documents that are **prepared by Caltrans**. Please use the form fill boxes on this page to include information specific to your project. This page must include a paragraph telling the public how to obtain the document in alternative formats.

Natural Environment Study (Minimal Impacts)

Enter general location information

Enter general location information

Enter District-County-Route-Post Mile(s)

Enter project number(s)

**Enter Month and Year**

STATE OF CALIFORNIA

Department of Transportation

Prepared By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Enter preparer's name and title

Enter phone number

Enter office name

Enter District/Region

Recommended for

Approval By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Enter reviewer's name and title

Enter phone number

Enter office name

Enter District/Region

Approved By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Enter name and title

Enter phone number

Enter office name

Enter District/Region

(Sample text) For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Larry E. Planner, Environmental Planning, 50 Higuera Street, San Luis Obispo, CA 93401; (805) xxx-xxxx (Voice) or use the California Relay Service (800) 735-2929 (TTY to Voice), (800) 735-2922 (Voice to TTY) or 711.

This page is used for documents that are **prepared by a consultant or local agency, NOT Caltrans**. Please use the form fill boxes on this page to include information specific to your project. This page must include a paragraph telling the public how to obtain the document in alternative formats.

Natural Environment Study (Minimal Impacts)

Enter general location information

Enter general location information

Enter District-County-Route-Post Mile(s)

Enter federal project number

**Enter month and year**

STATE OF CALIFORNIA

Department of Transportation

Enter local agency or agencies

Prepared By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Enter preparer's name and title

Enter phone number

Enter office name and address

Enter consulting firm name

Prepared By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Enter name and title of authorized local agency representative

Enter phone number

Enter office name and address

Enter agency name

Approved By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Enter name and title

Enter phone number

Enter office name

Enter cooperating agency name

Approved By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Enter name and title

Enter phone number

Enter office name

Enter cooperating agency name

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1. Introduction

The Introduction describes the proposed project, general location, provides a concise statement of the project’s purpose and need, and a brief summary of the findings for each resource.

* 1. Project History
     1. Project Purpose and Need

Describe the project’s purpose and need in this section – obtain from the Environmental Generalist/Planner and Environmental Study Request from Design.

* 1. Project Description

Include the project description in this section – obtain from the Environmental Generalist/Planner and Environmental Study Request from Design.

Describe the project’s location in this section, including county, route, post mile; section, township, range and 7.5-minute U. S. Geological Survey (USGS) quadrangle map. Include figures for reference.

(Sample text) **Figure 1: Project Location Map**

(Sample text) **Figure 2: Project Biological Study Area Map**

1. Study Methods

Describe the study methods in this section. This discussion tells the reader what studies were conducted, why, how, and when they were conducted.

* 1. Regulatory Requirements

Include a discussion of applicable regulatory requirements that are relevant to the project, such as Section 1600, 401, 404, 4f, Coastal Development Permit, etc. in this section. More information can be found on the [SER](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser): [Volume 1, Chapter 1: Federal Requirements](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-1-federal-requirements); [Volume 1, Chapter 2: State Requirements](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-2-state-requirements); and [Volume 3, Chapter 2: Natural Environment Study](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-3-biological-resources/ch-2-natural-environment-study).

* 1. Studies Required
     1. Literature Search

Describe the literature search conducted to identify required studies/surveys in this section, including the following items:

* **Mandatory** United States Fish and Wildlife Service (USFWS) Species List (obtained from Information for Planning and Consultation [IPaC]) , attached as an appendix – these need to be dated and valid (no more than 180 days old).
* **Mandatory** NOAA’s National Marine Fisheries Service (NOAA Fisheries) Species List (obtained from California Species List Tools), attached as an appendix – these need to be dated and valid (no more than 180 days old), unless the project is outside of NOAA Fisheries jurisdiction. If the project is located outside of NOAA Fisheries jurisdiction, a NOAA Fisheries species list is not required and a statement must be included in the NES that the project is located outside of NOAA Fisheries jurisdiction.
* California Natural Diversity Data Base (CNDDB) list for the region where the project occurs.
* California Native Plant Society (CNPS) list for the region where the project occurs.
  + 1. Field Reviews

Describe field reviews conducted for the project in this section.

* + 1. Survey Methods
  1. Personnel and Survey Dates

Identify field personnel, their qualifications, and survey dates in this section.

* 1. Agency Coordination and Professional Contacts

Describe communications with agency personnel and other professionals in this section.

* 1. Limitations That May Influence Results

Discuss any limitations and constraints in this section.

1. Results: Environmental Setting

The Environmental Setting describes the region in which the project will occur. A clear description of the setting helps to explain the context and intensity of impacts. The setting discussion gives the reader a concise description of the area’s topography, soils, habitat, watercourses and level of human or natural disturbance.

* 1. Description of the Existing Physical and Biological Conditions
     1. Study Area

Define the biological study area (BSA) and the rationale used to delineate the BSA.

* + 1. Physical Conditions

Describe physical conditions in the BSA.

* + 1. Biological Conditions

Describe biological conditions in the BSA.

* + 1. Habitat Connectivity

Describe habitat connectivity.

* 1. Regional Species and Habitats and Natural Communities of Concern

A description of the regional sensitive species and habitats should be described in this section, including common names, scientific names, description of habitat requirements, status and potential to occur in project area. These are generally the species/habitats/resources that come from the regional species lists such as the USFWS species list, NOAA Fisheries species list, CNDDB list, and CNPS list. Federal and state listed species, managed species, fully-protected species, etc. are discussed here.

It is recommended that a table is used to describe species. Include a follow up with text if necessary. Document which species require additional studies. Provide a general, regional comparison of habitat requirements per species and compare project specific habitats to determine what species are likely to occur in the project area. Please note that every species on the USFWS and NOAA Fisheries lists must be included/analyzed. Section 4 provides the survey specific results.

(Sample text) **Table 1: Listed, Proposed Species, Natural Communities, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area.**

| **Common Name** | **Scientific Name** | **Status** | **General Habitat Description** | **Habitat Present/ Absent1** | **Rationale** |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  | P |  |
|  |  |  |  | A |  |
|  |  |  |  | CH |  |

(Sample text) 1Absent [A] - no habitat present and no further work needed. Habitat Present [HP] - habitat is, or may be present. The species may be present. Present [P] - the species is present. Critical Habitat [CH] - project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); California Native Plant Society (CNPS), etc.

1. Results: Biological Resources, Discussion of Impacts, and Mitigation
   1. Habitats and Natural Communities of Special Concern

Explanation of Natural Communities Status. See Chapter 4 of the NES for further explanation of what should be included in Natural Communities (including Wetland and Waters discussion). Present each natural community individually in this section, using as many sub-headings as needed.

* + 1. Discussion of Natural Community “X”

Present each community individually.

* + - 1. Survey Results

Discuss/describe natural communities of special concern as listed above.

* + - 1. Project Impacts

Describe project impacts in this section.

* + - 1. Avoidance and Minimization Efforts/Compensatory Mitigation

Projects requiring more than minimal compensatory mitigation need a full NES and shall not use this format.

* 1. Special Status Plant Species

This section contains boilerplate text that should be edited to describe the resources present within the BSA. Present each species individually in this section, using as many sub-headings as needed.

(Boilerplate text) Plants are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the presence of habitat required by the special-status plants occurring on site. {Insert Name(s)} plant(s) was/were found to be present within the BSA.

* + 1. Discussion of Plant Species “X”

Discuss and discuss each species individually.

* + - 1. Survey Results

Describe survey results in this section.

* + - 1. Project Impacts

Describe project impacts in this section.

* + - 1. Avoidance and Minimization Efforts/Compensatory Mitigation

Projects requiring more than minimal compensatory mitigation need a full NES and shall not use this format.

* 1. Special Status Animal Species

This section contains boilerplate text that should be edited to describe the resources present within the BSA. Present each species individually in this section, using as many sub-headings as needed.

(Boilerplate text) Animals are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring on site. {Insert Name(s)}animal(s) was found to be present within the BSA.

* + 1. Discussion of Animal Species “X”

Discuss and discuss each species individually.

* + - 1. Survey Results

Describe survey results in this section.

* + - 1. Project Impacts

Describe project impacts in this section.

* + - 1. Avoidance and Minimization Efforts/Compensatory Mitigation

Projects requiring more than minimal compensatory mitigation need a full NES and shall not use this format.

1. Conclusions and Regulatory Determinations
   1. Federal Endangered Species Act Consultation Summary

For a DED, a determination for each species and alternative is made at the no effect or may affect level. As the federal lead agency, the level of determination is made by Caltrans (for assigned projects and FHWA for non-assigned projects).

Include a statement describing when the species list was received from USFWS or NOAA Fisheries. A determination for every listed species and critical habitat is included, either no effect; may affect, not likely to adversely affect (NLAA).

For projects outside of NOAA Fisheries jurisdiction, where a species list is not required, please include the following statement: This project is located outside of NOAA Fisheries jurisdiction, therefore a NOAA Fisheries species list is not required and no effects to NOAA Fisheries species are anticipated.

* 1. **California Endangered Species Act Summary**

Insert a summary of the California Endangered Species Act consultation with the Department of Fish and Wildlife with findings. Include a statement that no state-listed species occur on the project or that no take of state-listed species is anticipated, or a list of the State-listed species that occur on the project. Please note that the NES(MI) template is not typically used for projects that involve listed species except for “no effect’ and “may affect, not likely to adversely affect” determinations under the Federal Endangered Species Act. If the project involves take of a state-listed species, the full NES template may be needed to capture those details.

* 1. **Essential Fish Habitat Consultation Summary**

Insert a summary of the Essential Fish Habitat consultation with the NOAA Fisheries with findings.

* 1. Wetlands and Other Waters Coordination Summary

Insert a summary of the wetlands and other waters coordination with USACE, CDFW, Coastal Commission, RWQCB, BCDC; Executive Order 11990, etc., as appropriate.

* 1. Invasive Species

Invasive Species (Executive Order 13112). Include a discussion of the invasive species present within the project limits, their status, and measures taken to prevent the spread or infestation of invasive species. More information can be found on the SER: [Volume 3, Chapter 2: Natural Environment Study](https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-3-biological-resources/ch-2-natural-environment-study#2-4), Section 2-6.5.

* 1. Other

Include other information as necessary in this section, including the following items:

* Senate Bill (SB) 857: Section 5901 of the Fish and Game Code, Article 3.5 (commencing with Section 156) to Chapter 1 of Division 1 of the Streets and Highways Code, relating to fish passages. Include a discussion of the results of the reconnaissance assessment and whether additional work is required. Required: include a copy of the reconnaissance assessment and photos as an appendix.
* Migratory Bird Treaty Act. Include a summary of the migratory birds present and measures taken to avoid impacts to nesting birds.
* California Fish and Game Code Sections 3503 and 3503.5 (protection of birds’ nests) and 3513 (taking Migratory Bird Treaty Act birds). Include a summary of native birds protected by this code and measures taken to avoid impacts to these birds.
* Wild and Scenic Rivers. Include consultation information.
* California Coastal Commission. Include coordination summary.

1. References

The standard reference system for biological technical documents is the Name-Year citation system [e.g., Smith 1999, Smith and Jones 1899] common to many wildlife and natural resource publications. A discussion of the different systems and specific usage guidance for the Name-Year System may be found in Chapter 30 of Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers, 6th ed.

Preparers should have copies of cited references available for reviewers at the reviewer’s request and are responsible for the applicability of the references to the study.

Describe references used to develop this document in this section, using the following formats:

* Books, Journal Articles, Reports: [Author(s). YEAR Title. Publisher/Source. Volume: Page begin-Page end].
* Correspondence: [Author(s). Date. Subject. Agency/Company. Pp. (pages)].
* Phone: [Contact Name. Date. Subject. Agency/Company. Phone Number. Result/Action].
* E-mail: [Contact Name. Date. Subject. Agency/Company. E-mail address. Result/Action].

1. Appendix

Appendices are to be in order of the first occurrence in the text. Include a copy of species lists and other information that is available publicly in this section, including the following items:

* USFWS species list, dated and valid (no more than 180 days old) (required).
* NOAA Fisheries species list, dated and valid (no more than 180 days old) (required).
* A copy of the reconnaissance fish passage assessment and photos, if applicable (required).
* CNDDB, CNPS, or other lists of potential species in the project area.
* Copies of references, photos, etc.

DO NOT INCLUDE SPECIFIC INFORMATION, SUCH AS LOCALITY DATA, THAT IS NOT AVAILABLE PUBLICLY. FOR CNDDB SENSITIVE DATA INCLUDE ONLY THE LOCALITY RECORD NUMBER. Provide appropriate information as necessary so that a reviewer may confirm or review your findings.