

THE SRF PRELIMINARY ENGINEERING REPORT

ENVIRONMENTAL EVALUATION SECTION:

PROCEDURES AND LANGUAGE

BE SURE TO REFER ALSO TO THE SRF ENVIRONMENTAL GRAPHICS GUIDANCE

Environmental Review Authorities:

IDEM: Indiana Department of Environmental Management
IDNR: Indiana Department of Natural Resources (Environmental Unit)
DHPA: Division of Historic Preservation and Archaeology (in IDNR)
NRCS: Natural Resources Conservation Service (formerly SCS)
USFWS: U.S. Fish and Wildlife Service

Good advice:

- (1) **Avoid impacts to wooded areas and/or wetlands.** Such impacts will increase project cost due to required mitigation (not SRF reimbursable, in most cases) and prolonged project review.
- (2) **Provide descriptions of the sites of structures and the routes of lines.** Please provide civil township name, topographic quadrangle name, and section-range-township (srt) information for each project area; please avoid providing srt information for the project area as a whole.
- (3) **SRF will coordinate the Environmental Review.** Do NOT contact the U.S. Fish & Wildlife Service or IDNR for project review, especially if other federal funding is involved, unless authorized by your SRF environmental review coordinator.
- (4) We do not judge a Preliminary Engineering Report (PER) by page count. We recommend single-spaced, two-sided pages. Please do not include species lists, discussions of the geological history, soil types, or indigenous peoples of an area, etc. The environmental chapter must discuss only negative environmental impacts; a discussion of the project's positive impacts will be included in other parts of the PER and need not be repeated in the environmental chapter.

DEFINITIONS

Prime and Unique Farmland: A designation based, in part, on soils and hydrology, NOT actual use. The Natural Resources Conservation Service and the loan applicant's consultant assess the amount of land that will be affected by the project, either directly or indirectly (i.e., by inducing development). This determination is made through completion of the ad-1006 Farmland Conversion Impact Rating form. SRF will supply guidance for completing this process.

Undisturbed land: Any land, regardless of zoning or ownership, including agricultural land (i.e., row-crop farmland, orchards, pasture, fallow farmland, or land that was previously farmland but is now grass or other vegetation), that has not been substantially disturbed by recent soil disturbing activities. This may include easements. **Such land may be subject to archaeological investigation.** Be sure the PER Environmental Evaluation section states the source of borrow soil: is it from a commercial source or from undisturbed land such as farmland or other undeveloped land?

Wetlands: There are several definitions of a wetland, but in Indiana, federal and state environmental review authorities look at the acreage, quality, soils, hydrology and vegetation of an area to determine whether or not the area is a federal and/or state jurisdictional wetland. Many streams are riverine wetlands.
Important note: A wetland may NOT be obviously wet. You may need a Section 404 permit for wetland work from the U.S. Army Corps of Engineers and/or a Section 401 Water Quality permit from the IDEM Water Quality Section. Mitigation measures will likely be imposed by these authorities, as well as the USFWS and the IDNR.

I. General Environmental Review Procedures

A. Coordination

The SRF environmental review coordinator will coordinate the project environmental review. SRF will contact the environmental review authorities for their comments on the project. **Unless directed by the SRF environmental review coordinator, consultants and loan applicants should not directly contact the environmental review authorities to review SRF projects; in the past, this has led to project delays and has jeopardized deadline-sensitive funding.** (BUT see below if other federal funding is involved). The exception to this is coordination with NRCS, which will usually be the duty of the consultant; see page 6 for details.

Using the SRF environmental review coordinator as the single point contact has proven to be efficient and beneficial to our customers. The SRF environmental review coordinator will forward all correspondence from environmental review authorities to the consultant and the loan applicant. We **strongly** recommend that this correspondence be kept in the environmental chapter of the consultant's and loan applicant's copies of the PER.

However, if you are pursuing other federal funding, such as OCRA (HUD) or RD (USDA), the environmental review of the jointly funded project must be coordinated with the SRF environmental review coordinator. We must ensure that environmental review authorities are provided complete and accurate information about a proposed project, so that they can render an informed opinion one time. **Consequently, consultants must keep their OCRA and RD grant administrators up-to-date with revisions to the PER. Environmental review which has started without our input may not meet SRF requirements. But: coordinated environmental review among OCRA grant administrators, RD and SRF should be a win-win situation for our customers.** If you have questions about the environmental review process, please call Max Henschen at 317/232-8623.

B. Consistency between PER and plans/specifications

If the plans and specs show different routes for lines or different sites for structures or different borrow/fill areas than are in the approved PER, then some SRF loan funding or disbursements may be in jeopardy until SRF evaluates the changes. A new Environmental Assessment may have to be prepared and distributed for a 30-day public comment period.

II. Order of Topics and Suggested Language

Please discuss the topics in the Environmental Discussion in the following order.

A. Disturbed and Undisturbed Land

See the definitions on page 1. Briefly discuss where and how undisturbed land will be affected, as well as what type of undisturbed land it is (see Definitions on page 1). Don't forget to include borrow areas in the discussion. Always state the construction width (not trench width) for lines and area to be disturbed to install a structure, not the footprint area of the structure.

If lines will be placed under existing streets or immediately next to roads in areas disturbed by road construction, please state so. Avoid using terms such as "in existing rights-of-way" or "existing easements", since these terms are not descriptive and those areas may contain archaeological resources. Instead, describe off-road routes and structure sites. If lines or structures will be placed in sidewalks or yards, please clearly state so.

B. Historic and Architectural Resources (See the Environmental Graphics Guidance)

IDNR's Division of Historic Preservation and Archaeology has informed us that we must provide them with more information regarding project impacts on historic and architectural resources. Although to our knowledge, wastewater or drinking water projects have never resulted in substantial harm to such properties, their landscaping can be affected. If your project will affect curbs, brick streets, brick sewers, sidewalks, yards or street-side plantings, please state so.

Illustrate the project on photocopies of the entire map page(s) from the County Interim Report (IR): see

<http://www.historiclandmarks.org/Resources/ArchitecturalSurveys/Pages/SurveyReports.aspx> to order interim reports. Check the IR to see if the project area is in an Historic District or will physically affect or be near an historic or architecturally significant site. **Indianapolis townships, Bloomington, Fort Wayne, Mishawaka, New Albany, and South Bend** have their own Interim Reports. **On the relevant maps from the Interim Report, draw and label all proposed project elements** (see Environmental Graphics Guidance). If you refer to a specific historic site in the text, please use the 11-digit IR identifier or what the IR uses as complete identifiers. Be sure to label cemeteries if the project is next to one. Include these maps in the environmental chapter.

Research the web addresses listed on page 4 of the environmental graphics guidance and state in the PER that those sites were researched. If any historic sites have been added since the IR was published, illustrate those sites on a photocopy of the Interim Report map(s).

For projects in Benton, LaGrange, Martin, Pike, Pulaski, Tipton, and Union counties, please contact the county or local historian for an opinion regarding the project's effects on historic sites. See <http://www.indianahistory.org/our-services/local-history-services/local-history-contacts/local-history-contacts> for a list of county historians, historical societies and other resources; include their opinion in the Environmental Evaluation section of the PER. If your project is in Adams, Allen or Warren counties, you will have to research unpublished material at the DHPA in Indianapolis to include in the PER; please contact the SRF Environmental Review Coordinator for details. See the graphics guidance document's for other links and PER requirements.

C. Wetlands (See the Graphics Guidance)

Construction activity in or very near wetlands must be avoided whenever possible. Filling, dredging or draining wetlands requires state and/or federal permits. Increased cost to avoid a wetland is not necessarily sufficient justification for affecting a high-quality wetland.

Exceptions: Equalization basins, lagoons and some tankage are often given wetland designation on National Wetlands Inventory (NWI) maps, but such designations have never affected project activities involving those basins.

Costly compensatory mitigation involving wetland construction, tree planting, etc., may be required by the U.S. Army Corps of Engineers, the IDEM 401 Water Quality Section, and the U.S. Fish and Wildlife Service for wetland impacts. SRF expects mitigation measures provided by IDNR and USFWS to be implemented by the loan applicant, the consultant and the construction engineers, but **compensatory mitigation replacement of trees and wetlands is not SRF fundable if the impact could be avoided.**

Erosion control measures are especially important when working near wetlands. Dewatering flows should not be directly discharged to streams or wetlands; a settling basin or some other effective mitigation measure to reduce suspended solids is the preferred mitigation measure.

Suggested language for part of the wetland section of the environmental chapter (use this language only if the statement is true); do NOT have this statement comprise the entire wetlands discussion:

"Wetlands will not be affected by construction or operation of the project." Be sure to check for riverine wetlands (streams & rivers) using the "wetland lines" layer on The IndianaMap or check a paper copy of the NWI map. In those cases where wetlands will be unavoidably affected, appropriate language for the wetlands discussion of the Environmental Evaluation section is:

"Mitigation measures to lessen and compensate for wetland impacts cited in comment letters about the project from the Indiana Department of Natural Resources and the U. S. Fish and Wildlife Service will be implemented."

D. Hydrology (See the Graphics Guidance)

1. Surface Waters

Describe the settings of **all** crossings of ephemeral (intermittent) and perennial (permanent) streams and label them clearly on an appropriate map; state in the text or map label whether the crossed streams are ephemeral or perennial. Perennial streams are illustrated as solid blue lines on topographic maps, whereas ephemeral streams are represented by interrupted blue lines.

The IndianaMap (<http://inmap.indiana.edu/viewer.htm>) will NOT show ephemeral streams in the "streams" layer; you must examine the topo map layer to determine where those are.

Mention if the stream will be crossed by open cut excavation or by other, less invasive, means.

Mention whether or not the project will require crossing or boring under waters of high quality (327 IAC 2-1-2 (3) or exceptional use streams (327 IAC 2-1-11 (b), Natural, Scenic and Recreational Rivers and Streams (312 IAC 7-2) or Salmonid Streams (327 IAC 2-1.5-5(a)(3) or Outstanding Rivers (<http://www.in.gov/legislative/register/20070530-IR-312070287NRA.xml.pdf>)). Explain why open cut crossings cannot be avoided, and list mitigation measures you intend to take to lessen such impacts to the stream and riparian vegetation, especially wooded areas. Suggested language (use only if true): **The project will**

not adversely affect waters of high quality listed in 327 IAC 2-1-2(3), exceptional use streams listed in 327 IAC 2-1-11(b), Natural, Scenic and Recreational Rivers and Streams listed in 312 IAC 7-(2), Salmonid Streams listed in (327 IAC 2-1.5-5(a)(3), or waters on the Outstanding Rivers list (Natural Resources Commission Non-rule Policy Document). *Please note: If your project crosses a stream by open cut, you will be adversely affecting that stream/wetland, as well as the riparian area next to the stream.-*

2. 100-Floodplains and Floodways

A 100-year floodplain consists of a floodway and a floodway fringe. No dredge or fill is allowed in a floodway without a permit from IDNR Division of Water. Illustrate the boundaries of the 100-year floodplain in the project areas. Discuss how above-grade structures in the 100-year floodplain will be protected.

3. Groundwater

Will dewatering be necessary due to high groundwater? Please mention if your project will do more than temporarily affect a groundwater table or local wells during construction due to dewatering. Your mitigation measures should ensure that dewatering flows will be settled in a settling basin prior to discharge or otherwise not introduce solids to a surface water. SRF may require soil borings at proposed lagoon or equalization basin sites; we must be sure that those sites are suitably separated from groundwater and bedrock and high groundwater. This is a project planning issue, not a design issue.

If your project is in **St. Joseph, Lagrange, Elkhart, Noble or Kosciusko counties**, you may have to address project impacts to the St. Joseph Sole Source Aquifer (SSA). If your project is in eastern **Steuben, DeKalb or extreme northeastern Allen counties**, you may have to address project impacts to the recently approved Michindoh SSA. SRF will provide a map of the aquifer area.

E. Plants and Animals

Please do not provide lists of species in the project area, whether endangered or not. Discuss project impacts to endangered species and/or their habitats only as they are **NEGATIVELY** affected by the project. Be sure to mention impacts to wooded and scrub/shrub areas and be specific as to where they will occur. Wooded areas and other areas of good wildlife habitat such as scrub/shrub and wetlands should be avoided.

Comment letters from environmental review authorities usually list mitigation measures to reduce negative project impacts on plants and animals. SRF and state and federal review authorities expect the loan applicant, its consultant and the construction engineers to implement such mitigation measures.

The following language is suggested only as part of this section of the environmental chapter; use this language only if it is accurate; do NOT make this language the entire discussion of project impacts on plants and animals: **"The project will be implemented to minimize impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Indiana Department of Natural Resources and the U. S. Fish and Wildlife Service will be**

implemented." Changes to this language may be appropriate after environmental review authorities have commented on the project.

F. Prime Farmland and Geology

We do not need a discussion of project area soils. The Natural Resources Conservation Service (NRCS) must be consulted on any SRF project that will disturb the ground, whether or not that land is obviously farmland and regardless of zoning or ownership. You and your consultant are considered the "federal agency" for NRCS coordination purposes. Your consultant will contact the NRCS using the Farmland Conversion Impact Rating form and project information. Please read the guidance for filling out the form—fill out only parts I and III. If undisturbed land will be affected by your project, please include a soils map in the initial communication with the NRCS. Include a copy of the completed form sent to NRCS, as well as one copy of the NRCS reply in the Environmental Evaluation section of the PER. Provide assurances that the project will keep siltation and erosion to a minimum, and list your methods for ensuring this in a Mitigation Measures section. Environmental review authorities will provide mitigation measures for reducing or eliminating waterway siltation and contamination due to construction activities. The loan applicant, consultant and construction engineer will be expected to implement mitigation measures.

G. Air Quality

1. Mention short-term (construction-related) and long-term (operational) negative impacts. These include noise, dust (e.g., asbestos, lead, etc.), odors and airborne contaminants (e.g., ozone). Mention the mitigation measures you'll use to limit such impacts.
2. Discuss the existing compliance of the project area regarding ozone and other airborne pollutants, and describe the project impacts on future compliance.

H. Open Space and Recreational Opportunities

If you are going to disturb a recreational area (e.g., a park), mention that fact and note whether the impact is permanent. Be sure to mention erosion control measures. Suggested language (*use only if true*): **"The proposed project's construction and operation will neither create nor destroy open space and recreational opportunities."**

I. Lake Michigan Coastal Program

IDNR administers the Lake Michigan Coastal Program as the lead agency for the federal Coastal Zone Program. This program looks at impacts in **Lake, Porter and LaPorte counties.** The coastal zone includes inland areas, such as dune/swale, wetlands, etc., as well as the actual Lake Michigan shoreline. The SRF must initiate a "federal consistency review" with the IDNR for projects in the Lake Michigan Coastal Zone; this review may take 60-90 days. Until further notice, the following language, if true, should be used in the PER environmental impacts chapter to address this issue: **"The proposed project will not affect the Lake Michigan Coastal Zone."** See <http://www.in.gov/dnr/lakemich/>.

J. National Natural Landmarks

It is very unlikely that your project will impact these. This link is current as of December 8, 2010: http://www.nature.nps.gov/nml/Registry/USA_Map/States/Indiana/indiana.htm. The IndianaMap has a National Natural Landmarks layer in the Surficial Geology folder in the GEOLOGY folder. Suggested language: **"The construction and operation of the proposed project will not affect National Natural Landmarks."**

K. Secondary Impacts (aka Induced or Cumulative Impacts)

Please do not cite economic needs as justification for an SRF project. The Wastewater SRF program was developed to address the enforceable requirements of the Clean Water Act. The Drinking Water SRF program addresses the enforceable requirements of the Safe Drinking Water Act. **SRF Funding may be used only to abate existing water pollution and drinking water needs. SRF funds may not be used to stimulate growth or attract development,** although projects should typically be designed for a 20-year planning period. **The most important negative long-term environmental impact of virtually any project is growth and development enabled by the project.** Such development can threaten wetlands, wooded areas and other valuable habitat, as well as prime farmland, archaeological /historic resources, etc., and it creates more air, water and solid waste pollution. Since a federally funded infrastructure project may result in development on previously undisturbed land, **the PER environmental impacts discussion must state that the loan applicant will protect sensitive environmental resources (wetlands, forested areas, steep slopes, 100-year floodplains, and archaeological/historical/architectural resources, etc.) from future growth and development which will use SRF-funded facilities.** If not cleared by federal and state environmental review authorities, construction related to such development could violate federal and state laws and regulations.

The means of protection should be discussed. Such protection can be accomplished through zoning ordinances and proper planning to avoid negative impacts due to future growth and development.

Here are two examples of acceptable language regarding secondary impacts:

"The town [or city or District or utility] will ensure, through local zoning laws or other means, that future development, as well as future collection system or treatment works projects connecting to SRF-funded facilities, will not adversely affect wetlands, wooded areas, steep slopes, archaeological/historical/structural resources, or other sensitive environmental resources. The town will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities."

Or: *"The town [or city or District or utility], through the authority of its council, planning commission or other means, will ensure that future development, as well as future collection system or treatment works projects connecting to SRF-funded facilities will not adversely affect wetlands, wooded areas, steep slopes, archaeological/historical/structural resources or other sensitive environmental resources. The town will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities."*

For drinking water projects, the proper terminology would be "...future development, as well as future supply, storage, distribution, or treatment works projects connecting to SRF-funded facilities...".

L. Mitigation Measures

Briefly list mitigation measures to avoid/lessen erosion, siltation, air quality impacts, impacts to wooded or scrub/shrub, wetland areas, steep slopes, etc., and other temporary or long-term negative impacts.