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I. GENERAL GRAPHICS GUIDELINES:

See the graphics examples at http://www.in.gov/ifa/srf/2376.htm#ENV

PLEASE Use bar scales. All graphics must clearly illustrate and label all proposed project elements. These elements typically include:

1. Treatment plants, including access roads, influent and effluent lines (and line sizes); outfalls; provide a site layout with a bar scale;

2. Borrow areas (unless borrow will come from a commercial source or disturbed land);

3. Lift stations or booster stations, including access roads, incoming and outgoing lines, as well as line sizes;

4. Water lines or sewers; manholes associated with proposed sewers do not usually have to be shown on SRF environmental graphic; if work is proposed only in a small number of manholes, those manholes should usually be shown on a graphic, or the affected streets should be indicated if work will occur in more than a few manholes. If it is unknown where the work might occur indicate the area where it might occur; that could be the entire town.

5. Force mains & interceptors;

6. Storage towers, including access roads & incoming/outgoing lines;

7. Well fields, including access roads & raw water lines;

8. Backwash tanks, including incoming/outgoing lines and outfalls.

SRF requires 8.5" x 11" graphics. Overlays of recent color aerial photos with project elements and/or environmental elements (wetlands, etc.) are recommended, but not necessary. Please avoid outlining project areas and showing contour lines.

Please do not use 11" x 17" graphics for environmental maps.
II. GUIDELINES FOR SPECIFIC MAP TYPES

To produce wetland, floodplain, and soils graphics, SRF recommends using the latest version of the IndianaMap: http://maps.indiana.edu; the site also has many other layers, as well as aerial photos. It is an HTML5 application and works best with Mozilla Firefox 10 or above, IE 9 or above, Chrome 12 or above, or Safari 5 or above. That website may be down intermittently on Tuesdays for server maintenance.

Please use search engines to find city or county GIS maps (e.g. Boone Co., Hamilton Co.), not available on the web sites listed below. City and county GIS sites often have the latest aerial photos.

- http://beacon.schneidercorp.com/
- http://www.39dn.com/

1. Wetlands Map Guidelines:

   Please Do Not Use federal internet wetland mappers such as the EPA Enviromapper, USGS National Map, USFWS Geotract or Wetlands Mapper, or any others that may be available. Instead use The IndianaMap by activating the “wetland” and “wetland lines” layers under the “Hydrology” folder. (Most city or county GIS sites do not show wetlands.)

2. 100-Year Floodplain Map Guidelines:

   This map may not be necessary if all work will be underground. If The IndianaMap has a DFIRM layer in the Hydrology folder for your project area, use that to produce a graphic. Drawing and labeling the project elements on the most recent FEMA FIRM (Flood Insurance Rate Map) or Flood Hazard Boundary maps is also acceptable. Visit the following website to electronically view and print floodplain maps:
   http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1. Some municipalities may not participate in the FEMA program and will not be mapped.

3. Soils Map Guidelines:

   A soils map is needed only when a project will affect undisturbed land of potential archaeological significance. Such land is typically defined as farmland or other areas that have not been disturbed in the last 50 years. Soils maps should be as clear as possible, not dark, and show the proposed project.

4. USGS Topographic Map Guidelines:

   For projects in cities, this map may not be necessary, but there are exceptions. These maps should be as clear as possible, not dark, and show the proposed project.

5. Photo Guidelines:

   **Ground level photos:** of proposed construction sites or routes are a good idea if those sites/routes are not developed; such photos may sometimes be required by the IDNR Division of Historic Preservation and Archaeology (DHPA) or another review authority. DHPA likes streetscape photos of line routes in historic districts, but does not always require them. Photos should have titles and be keyed to a map, with arrows indicating which direction the camera was facing.
Aerial photos: If a city or county has its own GIS webpage, those images can be used if they are leaf-off photos that are more up to date than The IndianaMap. **Please use only the latest leaf-off aerial photos in your PER.**

6. **Historic Sites and Structures — Interim Report Map Guidelines:**

Historic sites maps are always needed. Most Indiana counties, some cities, and all Indianapolis townships have an Interim Report which lists local above-ground historic and structural resources inventoried at the time of publication. Consult the latest county Interim Report of Historic Sites and Structures by visiting: [http://www.historiclandmarks.org/Resources/ArchitecturalSurveys/Pages/SurveyReports.aspx](http://www.historiclandmarks.org/Resources/ArchitecturalSurveys/Pages/SurveyReports.aspx). Please be sure to use all Interim Report maps that show any part of a proposed project.

Please photocopy the **entire** map page you need, being sure you include the map title and page number; please do not reduce the map. Draw your proposed project elements on it, being sure to note cemeteries; cemeteries should also be labeled on other project maps. There is no need to derive a scale for Interim Report maps.

If there is not an Interim Report for your county, please see [http://www.in.gov/dnr/historic/4505.htm](http://www.in.gov/dnr/historic/4505.htm) and the State Historic Architectural and Archaeological Research Database (SHAARD) link on that page. There is a web based map search engine called SHAARD GIS: [https://gis.in.gov/apps/dnr/SHAARDGIS](https://gis.in.gov/apps/dnr/SHAARDGIS).

These websites can be searched for National Register sites and cemeteries in your project area. They do not show historic districts at this time and are most useful for the southern half of the state. If you have questions, please call your SRF environmental coordinator for guidance. If there is not an Interim Report for your project’s county, you may have to research DHPA files in Indianapolis.

In addition to the Interim Report maps and SHAARD, please consult the web addresses listed below to see if properties have been added to the state or national registers of historic places since Interim Report publication. If your project will install/rehabilitate a line or structure near those sites, those new listings should be labeled on the Interim Report maps or on another graphic. For projects in Marion County, please indicate on the map which township in the Interim Report the map comes from. After you have checked the sites below for project-related information, please note in the PER text that you have done so.

1. [http://www.in.gov/dnr/historic/files/hp-nrlist.pdf](http://www.in.gov/dnr/historic/files/hp-nrlist.pdf) - *Indiana Properties Listed on the State and National Registers*. See the SHAARD database for addresses. July 2012 is the last posted list; DHPA says it will not be updated and refers researchers to the SHAARD database. **Note: the SHAARD does not yet have all historic sites or historic districts illustrated yet.**

2. [http://www.nps.gov/history/nhl/designations/Lists/IN01.pdf](http://www.nps.gov/history/nhl/designations/Lists/IN01.pdf) - a listing of Indiana’s 39 National Historic Landmarks.

III. ENVIRONMENTAL GRAPHICS CHECKLISTS

Please include these completed checklists and all environmental graphics, including Interim Report maps, in the Environmental Evaluation Section of the PER.

A. Please use this checklist to ensure that graphics have:
   ___ an accurate **bar scale** except for schematics, ground level photos & Interim Report maps
   ___ **bar scale large enough so that it remains easily legible if the graphic is reduced**
   ___ **accurate north arrow** except for schematics and ground level photos
   ___ a figure number
   ___ **stream crossings labeled or indicated** on at least one graphic
   ___ **cemeteries labeled** if the project is next to or within ¼ mile
   ___ a legend indicating **only the elements shown on the map**

B. Please use this checklist to ensure that graphics conform with Part II: Guidelines

1. **National Wetlands Inventory (NWI) Map**
   ___ Yes, the wetland maps meet the guidelines in Section II
   ___ Wetlands map not needed, per SRF

2. **100-Year Floodplain Map**
   ___ Yes, the 100-year Floodplain maps meet the guidelines in Section II
   ___ 100-year Floodplain maps are not available for all or part of the project area
   ___ 100-year Floodplain maps are not needed, per SRF

3. **Interim Report (Historic Sites/Structures Maps)**
   ___ Yes, the Interim Report maps meet the guidelines in Section II
   ___ Some or all of the project area is not covered by an Interim Report map

4. **Soils Map**
   ___ Yes, the Soils maps meet the guidelines in Section II
   ___ Soils maps not needed, per SRF

5. **Topographic Map**
   ___ Yes, the topographic maps meet the guidelines in Section II
   ___ Topographic map not needed, per SRF

6. **Photographs**
   ___ Yes, photos meet the guidelines in Section II

If you have questions, please contact Max Henschen (317-232-8623; mhensche@ifadotin.gov) or April Douglas (317-234-7294; adouglas@ifadotin.gov).