
Environmental Resource Survey Area Process

Project and Program Delivery Manual
Chapter 7
Stakeholders and Environmental Stewardship
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Introduction

The Environmental Resource Survey Area (ERSA) designates the area where environmental data will be gathered for a proposed project. This area will be inclusive of all design needs (i.e., the limits of construction, proposed land disturbance, new ROW, staging areas, utility relocations, and some detours).

The Location and Environment Bureau's (LEB's) resource managers (i.e., Cultural Resources, Protected Species and Natural Areas, Water Resources, Regulated Materials, Traffic Noise and Air Quality, and NEPA), will analyze and collect data in the ERSA area, but may evaluate a larger area if needed for compliance with regulatory agencies. If we need (1) to seek avoidance or (2) to minimize impact to areas discovered within this survey area during the environmental review, LEB will provide shapes called Project Environment Resource Layers (PERLs) for the designers to reference. LEB will work with the designers to discuss options regarding these identified areas.

Objectives

The purpose of the collaborative effort is to ensure everyone is aware of the design needs and the environmental review area of the project. If the environmental review is not inclusive of all design needs, additional analysis will be needed which could cause schedule delays and increased costs for the project.

Keeping the ERSA updated throughout project development will ensure projects stay on time and will improve communication throughout the process.

When do ERSAs need to be created and reviewed?

The ERSA deliverables will be part of the draft and final concept with a reference to the MicroStation file and as an attached geographic information systems (GIS) format (KMZ, shapefile).

- Projects that include the following types of activities will require an ERSA to be created:
 - Access improvements
 - Blasting
 - Debris removal
 - Drainage improvements
 - Facilities (maintenance, rest areas and weigh stations)
 - Grade and pave
 - Grading
 - Intersection/Interchange improvement
 - Noise wall
 - Pipe/Culvert work
 - Revetment
 - ROW
 - Slide repair
 - Structure repair
 - Structure replacement
 - Tree clearing and grubbing

It is the intent that the ERSA can be referenced in the CADD file during the design of a project. The designer will stay within the limits or will create a modified ERSA and provide it to LEB for additional environmental review.

At various stages of project development (aligned with the project schedule deliverables: D01, D02, D05, R01, DM5, plan turn-in events), the designer will reference the MicroStation ORD DGN containing the ERSA to ensure the proposed work does not extend beyond the ERSA boundary.

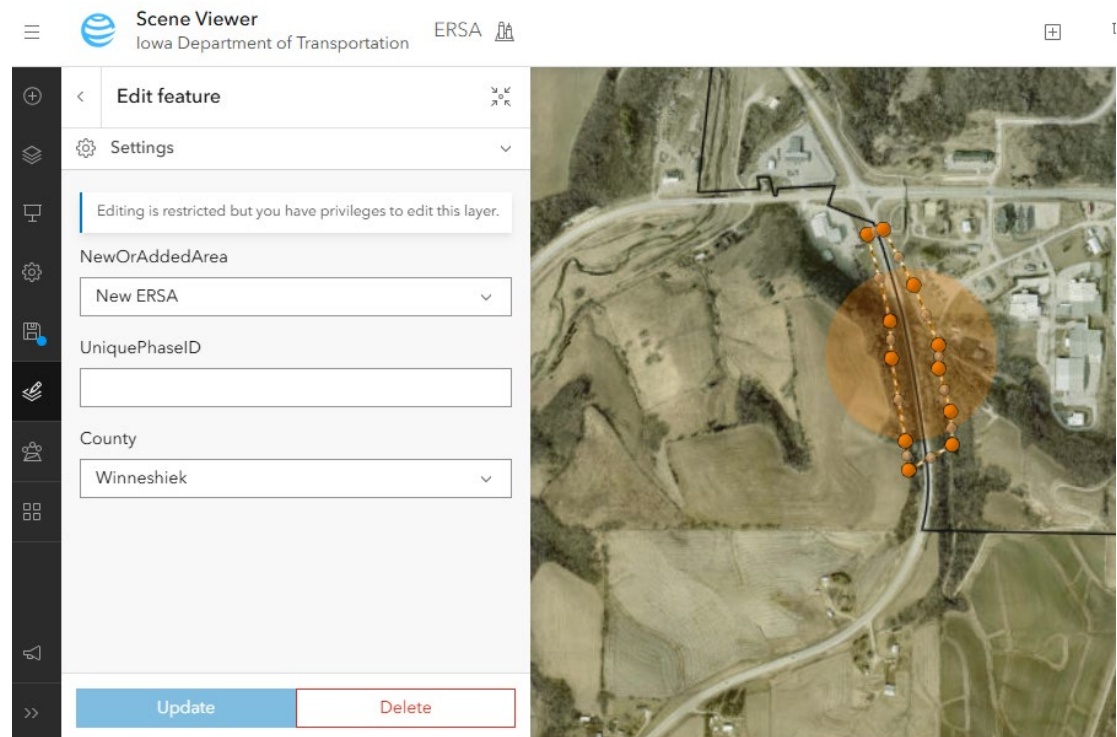
Who will create an ERSA?

Initial ERSA Creation

- Creation of the ERSA will be the responsibility of the project concept writers whether done by themselves or delegated to others. During the process of drafting of the project concept, collaboration is encouraged between concept writers, project managers, designers, and representatives from LEB to create the ERSA.
- The initial limits and shape of the ERSA area will be created either at the concept review meeting or in a separate meeting before the concept is submitted. If time allows during the concept review meeting, the ERSA may be created then. The concept writer will schedule a meeting to develop the ERSA if necessary.
- The ERSA deliverables will be part of the final concept with a reference to the MicroStation file and as an attached geographic information systems REST service.
- The ERSA tool will automatically send out an email with a predetermined list of recipients to notify them of the creation or modification of an ERSA.

ERSA Creation & Modification Tool

- LEB has created a 3D Scene (webmap) with an editable layer for the ERSA.
- <https://experience.arcgis.com/experience/737a3b544a8849dcb405479a52cb17d3>
 - To access and edit, users will need to have an ESRI AGOL account with “Creator” role and a “Data Editor” role (avoid custom roles).



- **To get access** to you will need to send a request email to adam.haar@iowadot.us with your ESRI AGOL account name and the associated project number you will be working on. An example of the account name is: Jane.Doe@iowadot.us_lowaDOT

- Concept writers and designers will create and modify polygons and fill out simple project information using the interface which is like Google Earth.
- When an ERSA is created, an automated email will be sent to a predetermined list.
- As the project progresses and the designer becomes aware that the project needs will extend beyond the survey limits, the designer will amend the boundary using the ERSA tool.
- When the ERSA is created or modified, the feature layer in AGOL and its REST service are automatically updated.
- **To create a new ERSA or add an additional area to an existing ERSA.**
 - Click on the Edit tool on the left side of the screen.
 - Select ERSA on the left side of the screen
 - Click on the map to add a vertex
 - Double-click to finish the polygon
 - Fill out Feature Data on the tab on the left side of the screen (New or Added Area, Unique Phase ID, and County).
 - Click Create at the bottom-left of the screen
- **To modify an existing ERSA after creation, (to be used to correct an error)**
 - Click on the Edit tool on the left side of the screen.
 - Click on the select tool in the pane
 - Click on the polygon to be modified.
 - Click on the polygon a second time to modify the shape.
 - Click on Update in the lower left of the pane.
- LEB Support Team will update a statewide DGN containing the ERSAs and Project Environmental Resource Layers (PERLs).
 - Location of the DGN in ProjectWise:
<pw:\NTPwint1.dot.int.lan:PWMMain\Documents\Resources\ERSA>
 - The REST service will be connected directly to a DGN using the Geospatial Context tools in ORD.
 - This single DGN will be used with all projects and will be updated daily.
 - The DGN level library will have levels matching the layer feature names from the REST service to include levels for ERSA and all PERLs to ensure consistency and standard symbology in the DGN.
 - The DGN can be referenced to other DGNs with the Reference dialog Tools→Attach tool. ERSAs and PERLs will be stored in UTM 15N. The file will need to be attached using the Reproject option to match coordinate systems used by designers.

Project Environmental Resource Layers (PERLs)

- LEB staff will use the ERSA to gather information about environmental resources within the boundary.
- Environmental resources will be made available through a GIS REST service and attached to a single MicroStation ORD file that will contain statewide ERSAs and Resources.
- Resources will be attributed with a priority of effect
 - 1 – Avoid
 - 2 – Minimize (Contact LEB)
 - 3 – No Issue
- If (1) Avoid or (2) Minimize areas are discovered within this survey area during the environmental review, LEB will provide shapes within the MicroStation file for the designers to reference. This file will be regularly updated by LEB. If a designer has questions about these areas, they should contact LEB for coordination. LEB will work with the designers to discuss options regarding these identified areas.

How will ERSAs be monitored and tracked?

- It is the intent that the ERSA will always be referenced into the working CADD files during the design of a project. The designer will stay within the limits or will create an additional area with the appropriate phase Unique ID and provide it to LEB for additional environmental review. LEB will also review the ERSA consistent with their event dates to verify there are no outstanding environmental resource impacts.

Chronology of Changes to Manual Section:

7.2.1 Environmental Resource Survey Area Process

11/07/2024	NEW
07/28/2025	Removed broken hyperlinks.
07/30/2025	Removed watermark.