

GIS Guidance BEAD NEPA Reviews

State Broadband Offices (SBOs) rely on clear and comprehensive project information from subgrantees to initiate the National Environmental Policy Act (NEPA) review process for BEAD-funded projects. While specific requirements may vary by state, most SBOs will request a GIS package containing detailed data about the proposed project. This guidance document is intended to help you be GIS ready.

SBO GIS REQUIREMENTS

Project description information should be communicated as a geospatial data package. Subgrantees should ensure their GIS package includes as much information as possible on:

Total construction footprint – Including the following, *if applicable*:

- ☐ Boundary of the temporary construction easement
- ☐ Boundary of the permanent easement
- ☐ Boundary of any utility easements, if running power for any reason
- ☐ Boundary of temporary laydown or staging areas, including storage locations for any spoils
- ☐ Location and dimension of temporary access roads
- ☐ Location and dimension of permanent access roads
- ☐ Connections to existing facilities, including connections to middle-mile routes, other non-BEAD funded last-mile points, or cell towers

Wireline projects – Including the following, *if applicable*:

- ☐ For projects along roadside rights-of-way, indicate the side of the road on which the installation will be placed
- ☐ Construction method, i.e., aerial or buried.
 - Note if utilizing existing infrastructure such as previously buried conduit or existing utility poles
 - If the construction method changes throughout the line, be sure the feature(s) clearly differentiate by installation method
- ☐ Location of replacement or new utility poles
- ☐ Location and dimension of bore pits
- ☐ Location and dimensions of handholes, vaults, etc.
- ☐ Location and dimension of ground disturbance to install cabinets
- ☐ Depth and width of trenching or plowing
- ☐ Waterway crossing method, i.e., boring or bridge attachment
- ☐ Location for the drops from the mainline construction to each individual location, include installation technique

Wireless projects – Including the following, *if applicable*:

For *new* towers

- ☐ Dimensions of the tower facility
- ☐ Height of the proposed tower above ground level

For *existing* towers

- ☐ Dimensions of the existing tower facility
- ☐ Dimensions of any compound expansion, if needed
- ☐ Overall height of the existing tower above ground level
- ☐ Height of the collocation above ground level

For non-tower collocations

- ☐ Type and Dimensions of the existing structure
- ☐ Height of the collocation above ground level

For all wireless projects

- ☐ Dimensions and locations of utility or access easements associated with the facility
- ☐ Dimensions and locations of any equipment placement
- ☐ Dimensions and locations of any other ground disturbance which may be required, i.e. generator placement, customer premises equipment installed by the grantee, etc.

Low Earth Orbit – Including the following, *if applicable*:

- ☐ Dimensions and locations of any ground stations that will be constructed or improved upon
- ☐ Dimensions and locations of access easements
- ☐ Dimensions and locations of any utility easements, if running power for any reason

Other – While not typically required for SBO submissions, it aids EBI’s review process if you know that you will need to complete the following:

- ☐ Tree trimming or removal
- ☐ Vegetation removal or use of pesticide/herbicides
- ☐ Wetland fill or water diversion

Technical Specifications – As these vary by state, EBI recommends confirming with the SBO what their preferences are for the following:

- ☐ File Format: Geodatabase (.gdb, .mpkx, .lpx, or .ppkx) or Shapefile. KMZs are not typically preferred and may be rejected by some states.
- ☐ Projection: NAD 83 UTM may be sufficient, but some states may have state-specific projections
- ☐ Base Map: Some states do not want aerial imagery included

EBI’s GIS REQUIREMENTS

EBI can conduct the Initial EC Screen using one of two approaches. Each option offers benefits and limitations, but both typically require two review cycles to fully assess the project.

Approach 1 – Detailed Design Review

When a detailed project description is available, EBI’s Initial EC Screen can focus on specific, actionable mitigation measures. This approach supports a clearer understanding of potential challenges in the NEPA process and allows for more precise recommendations. However, if aspects of the project design change as a result of this detailed review, EBI will need to re-screen those portions. This is EBI’s preferred approach, though we recognize that subgrantees may not always have complete design information early in the review process.

Approach 2 – Minimal Modeled Data Review

If detailed design information is not yet available, EBI can conduct the Initial EC Screen using modeled data that represents the approximate route. In this case, EBI will apply a “research buffer” to capture a range of possible construction scenarios. In this scenario, EBI’s Initial EC Screen can be used for design purposes, highlighting problem areas to avoid or construction methods to mitigate. Once the design is finalized, EBI will need to re-screen any portions of the route that fall outside the research buffer, as well as evaluate any changes to construction methods.

Please note, regardless of the preferred approach, the SBO will require the full GIS package with complete project details to proceed with the CATEX/NEPA Review.



FAQ

The SBO needs a Project Description, what should be included in this?

A well-defined project description is essential for meeting NEPA requirements and establishing an accurate Project Area. In general, the description should include all components necessary to describe the full scope of work, including:

- The total construction footprint
- All ground-disturbing activities
- The proposed route and/or facility locations
- Required connections (i.e. to existing middle-mile points, or utilities to power cabinets)
- Temporary or permanent access roads or easements
- Laydown, staging, or preparation areas

Any action required for the BEAD-funded portion of the installation to function should be included within the Project Area and described accordingly. Providing these details at the outset supports a more streamlined and predictable review process.

Why is so much information required?

BEAD-funded projects are subject to NEPA review, and many will rely on the Advisory Council on Historic Preservation's *Program Comment for Federal Communications Projects* to streamline Section 106 review. NEPA outlines what the SBO and NTIA must evaluate, and the Program Comment defines what constitutes a Project Area. The information provided in the GIS package enables SBOs and NTIA to meet their review obligations efficiently and accurately.

What happens if the requested information is unavailable at the time of submission?

Subgrantees are expected to have a reasonably complete design before submission. However, when certain design elements or ground-disturbance details are still uncertain, they can be addressed directly in the GIS package. Areas of uncertainty should be clearly marked, accompanied by a depiction of the "worst-case scenario."

For example, if a subgrantee intends to use existing aerial infrastructure but approvals are still pending, the GIS package should depict that span as buried (to reflect the greatest potential disturbance) along with a note clarifying that aerial installation is preferred and approvals are in progress.

What happens if the project design changes?

Design refinements are common as BEAD projects progress. Early and transparent communication with the SBO is strongly encouraged. Minor adjustments may fall within the existing research buffer and require only updates to the GIS package. More substantial changes, such as reroutes, may require NEPA addendums and notifications to relevant stakeholders. The SBO will advise subgrantees on the appropriate next steps.

Do you have an example of the state's GIS package needs?

The Wisconsin SBO has provided a straightforward example illustrating the types of information they expect to see in a GIS package. This example includes basic location data but does not include dimensional details. However, please know that dimensional information is essential for evaluating the extent of ground disturbance and will be a critical component of EBI's review.

