



# ATLAS TRAINING GUIDE

**DRAFT – Version 1**

**Version Publish Date: 10/21/2024**

*This is a living document and updated regularly.*



# Table of Contents

ATLAS Overview .....	1
ATLAS GIS Layers and Templates .....	2
ATLAS Search Tool.....	4
ATLAS Search Actions.....	4
ATLAS Screening Tool.....	7
ATLAS Screening Actions.....	7
ATLAS Workbench Tool.....	10
Navigating to ATLAS Workbench .....	11
ATLAS Workbench Components .....	12
ATLAS Workbench Discipline Tabs.....	14



DRAFT

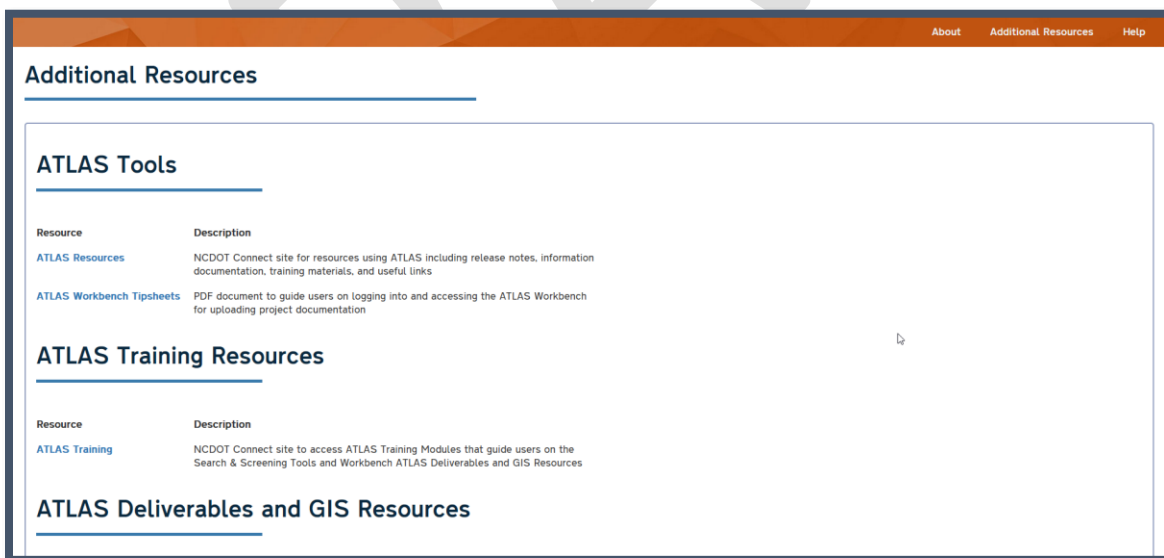
# ATLAS Overview

ATLAS is an acronym for Advancing Transportation through Linages, Automation, and Screening. The program improves business processes by providing up-to-date, authoritative human and natural resource data and a storage framework to support informed project development. To access the ATLAS tools, users must use their NCID username and password.

The purpose of this guide is to provide a broad overview of all ATLAS Tools: Search, Screening, and Workbench. This guide includes information on the use and functionality of all three tools. For specific training guidance, please visit the [ATLAS Training Site](#).

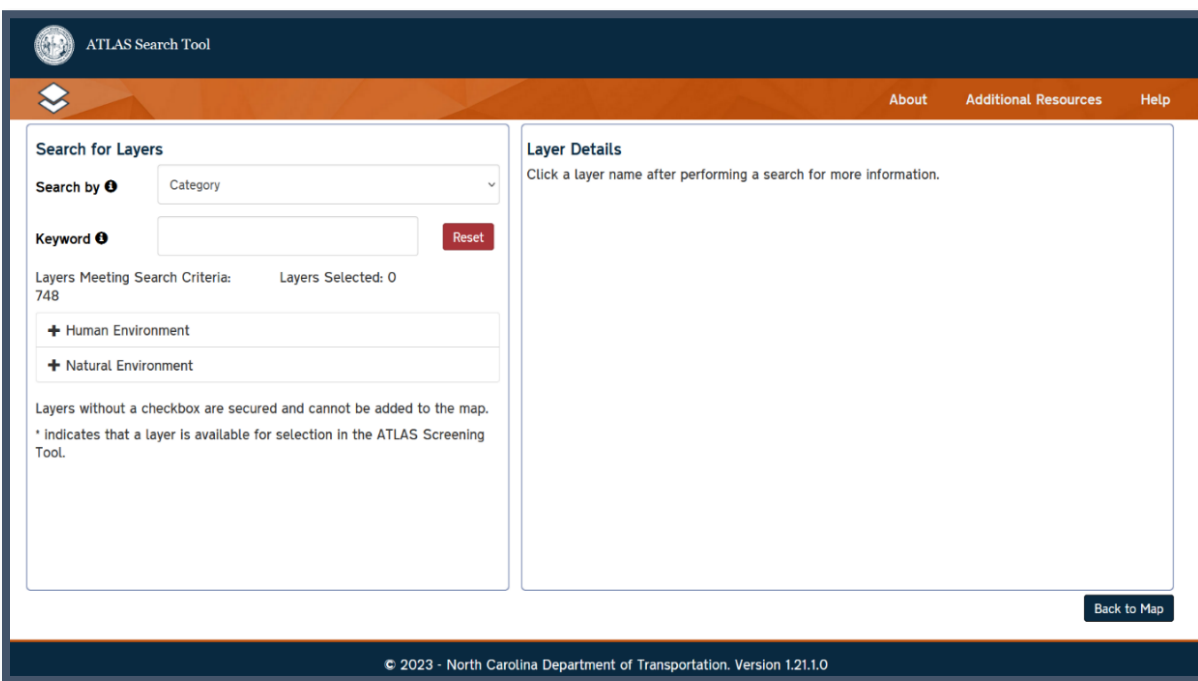
In addition to the ATLAS tools, the ATLAS Resources SharePoint Connect site has valuable information for ATLAS users to access. Here, users can find a variety of resources related to ATLAS such as release notes, information, documentation, training materials, links to the tools, and files.

In all ATLAS tools is a header in the upper ribbon that contains the icons for the respective tools' buttons (ATLAS Search , ATLAS Screening ). Users can toggle between the respective tools' buttons to take them over to the Search (from Screening) or to Screening (from Search). Other helpful features located in the upper ribbon are the About button, the Help button, and the Additional Resources button. The About button, gives a detailed description of Project ATLAS and how the tools may be useful. The Help button includes information on how to find more information on the tools and how to request help or provide feedback by emailing [ATLAS@ncdot.gov](mailto:ATLAS@ncdot.gov). The Additional Resources button is a useful page that includes a variety of links related to ATLAS Tools, ATLAS Training, ATLAS Deliverables and GIS Resources, ATLAS Policy Resources, and Other NCDOT Programs.



# ATLAS GIS Layers and Templates

There are more than 700 GIS layers in ATLAS. Layers with an asterisk (\*) indicate that these layers are available in both the Search and Screening Tools. Layers can be searched by Project Delivery **Category**, Final Key **Document** deliverable or the **Organization** that hosts or owns the data layer, and the keyword search returns a list of datasets that contain the search text in their name, description or owning organization.



GIS Layers are organized into two main categories: Human Environment and Natural Environment. Human Environment layers include those layers related to:

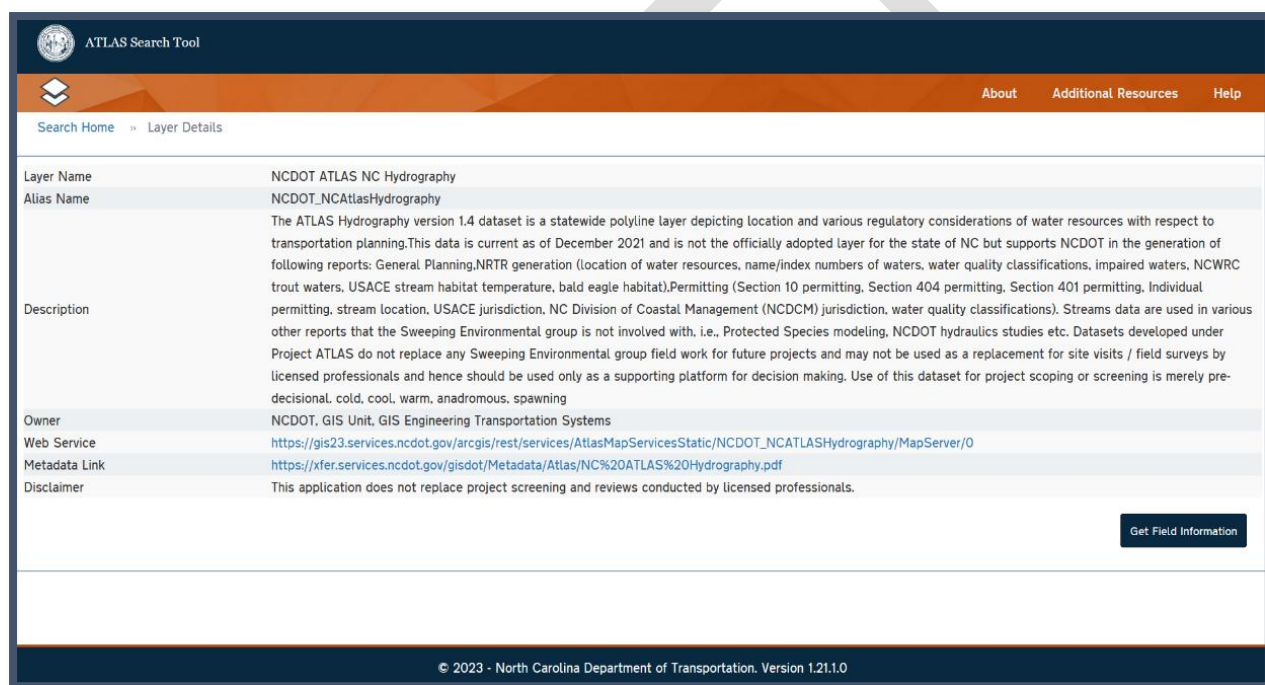
- Boundaries
- Community
- Cultural resources
- Demographics
- Geo environmental
- Noise and air
- Public property
- Special districts
- Transportation
- Utilities

Natural Environment layers include those layers related to:

- Coastal
- Conservation area
- Fish and aquatics

- Flood data
- Hydrography
- Land cover
- Mitigation
- Physiography
- Threatened and endangered
- Water quality
- Wetland

To find more information about a layer in the Screening Tool, select the Layer Information button. To find more information about a layer in the Search Tool, you can view the layer details by clicking on the layer in the list, and the information appears on the right-hand side of the screen. The Detailed Information button can provide information on the layer’s description, owner, web service link, metadata, and field information.



The screenshot shows the 'ATLAS Search Tool' interface. The top navigation bar includes 'About', 'Additional Resources', and 'Help'. The breadcrumb trail shows 'Search Home > Layer Details'. The main content area displays the following details for the 'NCDOT ATLAS NC Hydrography' layer:

Layer Name	NCDOT ATLAS NC Hydrography
Alias Name	NCDOT_NCAtlasHydrography
Description	The ATLAS Hydrography version 1.4 dataset is a statewide polyline layer depicting location and various regulatory considerations of water resources with respect to transportation planning. This data is current as of December 2021 and is not the officially adopted layer for the state of NC but supports NCDOT in the generation of following reports: General Planning, NRTR generation (location of water resources, name/index numbers of waters, water quality classifications, impaired waters, NCWRC trout waters, USACE stream habitat temperature, bald eagle habitat), Permitting (Section 10 permitting, Section 404 permitting, Section 401 permitting, Individual permitting, stream location, USACE jurisdiction, NC Division of Coastal Management (NCDCM) jurisdiction, water quality classifications). Streams data are used in various other reports that the Sweeping Environmental group is not involved with, i.e., Protected Species modeling, NCDOT hydraulics studies etc. Datasets developed under Project ATLAS do not replace any Sweeping Environmental group field work for future projects and may not be used as a replacement for site visits / field surveys by licensed professionals and hence should be used only as a supporting platform for decision making. Use of this dataset for project scoping or screening is merely pre-decisional. cold, cool, warm, anadromous, spawning
Owner	NCDOT, GIS Unit, GIS Engineering Transportation Systems
Web Service	<a href="https://gis23.services.ncdot.gov/arcgis/rest/services/AtlasMapServicesStatic/NCDOT_NCAtlasHydrography/MapServer/0">https://gis23.services.ncdot.gov/arcgis/rest/services/AtlasMapServicesStatic/NCDOT_NCAtlasHydrography/MapServer/0</a>
Metadata Link	<a href="https://xfer.services.ncdot.gov/gisdot/Metadata/Atlas/NC%20ATLAS%20Hydrography.pdf">https://xfer.services.ncdot.gov/gisdot/Metadata/Atlas/NC%20ATLAS%20Hydrography.pdf</a>
Disclaimer	This application does not replace project screening and reviews conducted by licensed professionals.

A 'Get Field Information' button is located at the bottom right of the details section. The footer of the page reads: '© 2023 - North Carolina Department of Transportation. Version 1.21.1.0'.

ATLAS Templates are preloaded layers developed by NCDOT disciplines. The [ATLAS GIS Layers & Templates](#) Excel document is available on the ATLAS Resources page that details the current ATLAS GIS layers and templates, descriptions, data sources, and URLs. A couple of important templates to note include:

- **Merger Pre-Screening:** This template can be used to help identify potential issues and conflicting resources relevant to Merger Screening and can also be used to identify needed technical studies. The mapped resources are not comprehensive and should be field verified.
- **Initial Issues Identification Template:** This template is helpful at the beginning of a project to identify potential issues, needed technical studies, agency coordination, and environmental permits. It includes key natural and human environment layers. This can be used to develop a project scope and schedule but does not replace appropriate field surveys.

# ATLAS Search Tool

The Search Tool is used to search or download data related to project development, as well as find and analyze a variety of data layers from multiple sources at once. The three primary functions of the tool: find GIS data from multiple sources in one place, view data on map, and download multiple data sources at once in GDB, SHP, and/or DGN formats. The data is useful for preparing for scoping, completing a technical report, or compiling an environmental document.

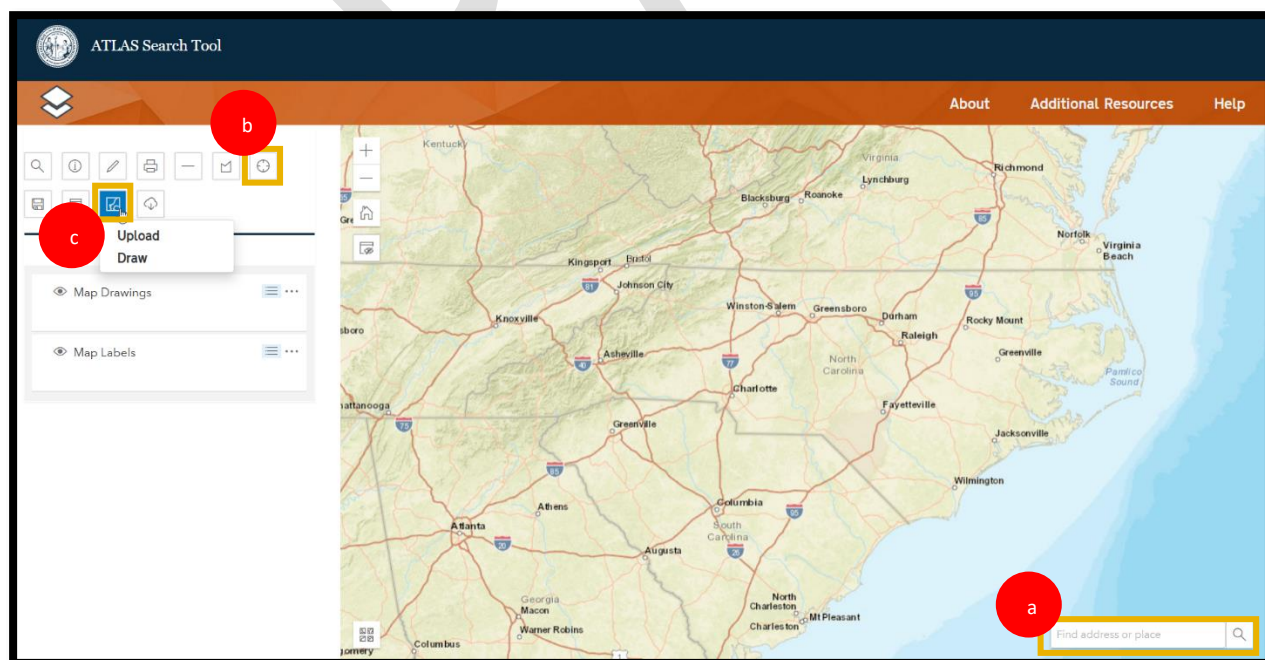
ATLAS Search can be accessed four different ways:

- Via the Connect home page
- Via Preconstructions home page
- Via the Project Site
- Via the Direct URL: [Search Tool](#)

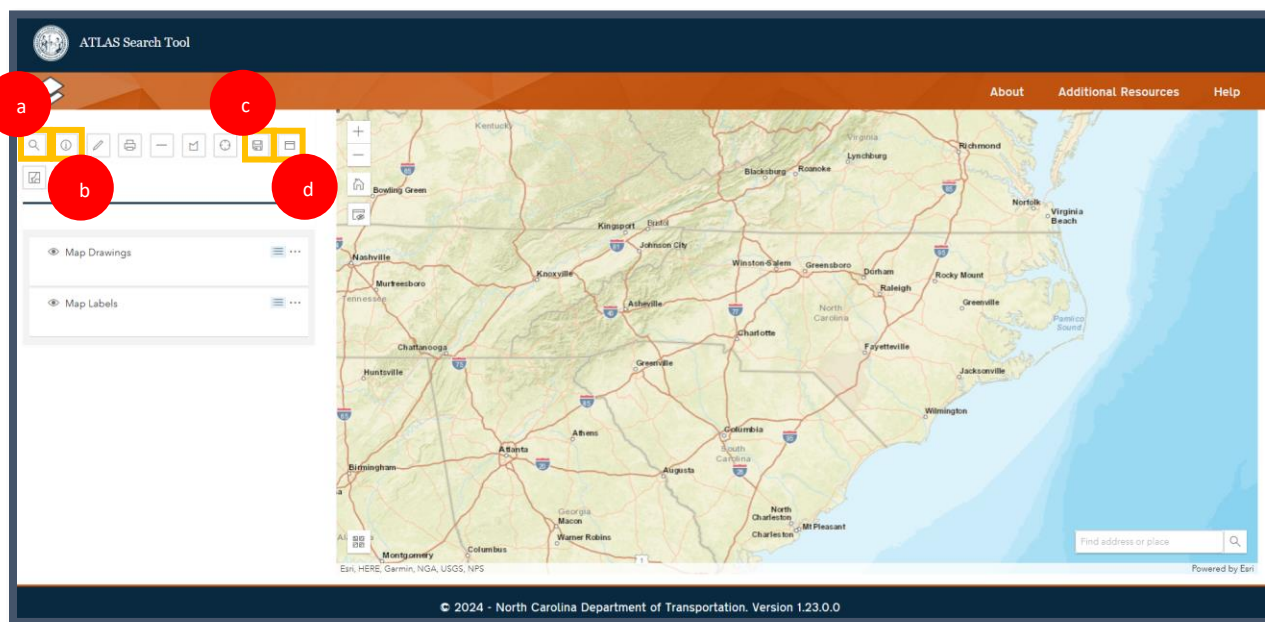
## ATLAS Search Actions

There are four key actions that you can perform in the tool:

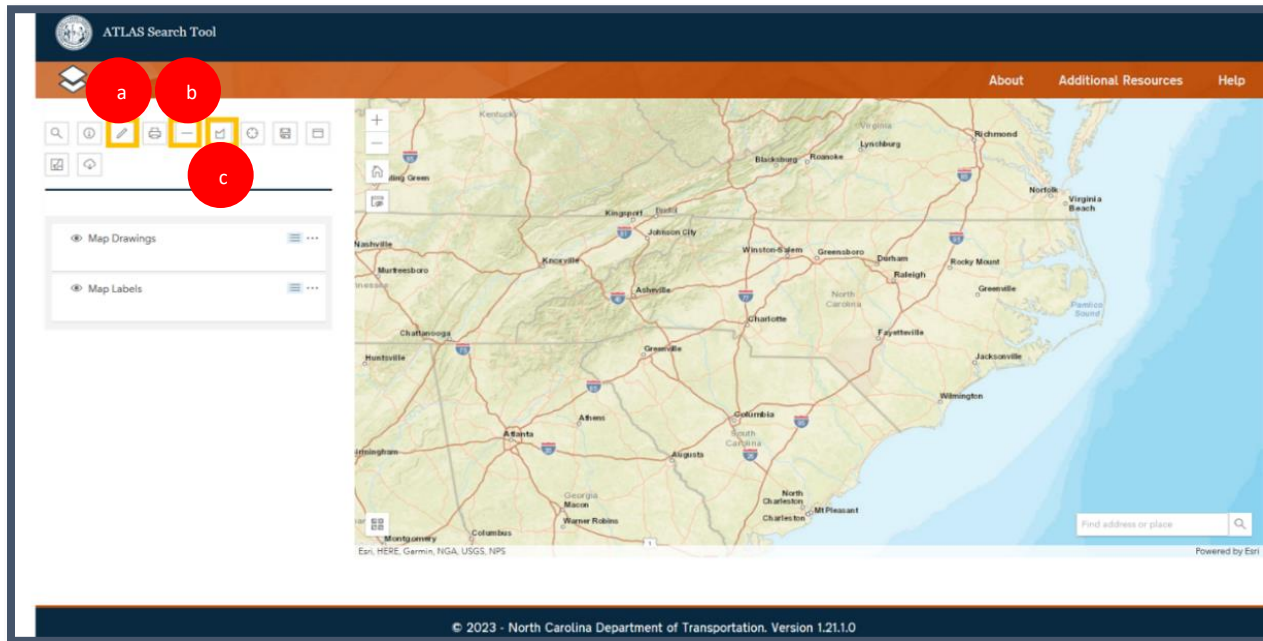
1. Find an area of interest: find an area by downloading or creating a study area, or by zooming into the map. To select an area of interest, either
  - a. Search by Address or Place to zoom to a specific location on the map
  - b. Click the find location icon to find the coordinates of any point on the map.
  - c. By uploading or drawing a study area by polygon, square, or circle areas less than 10 square miles.



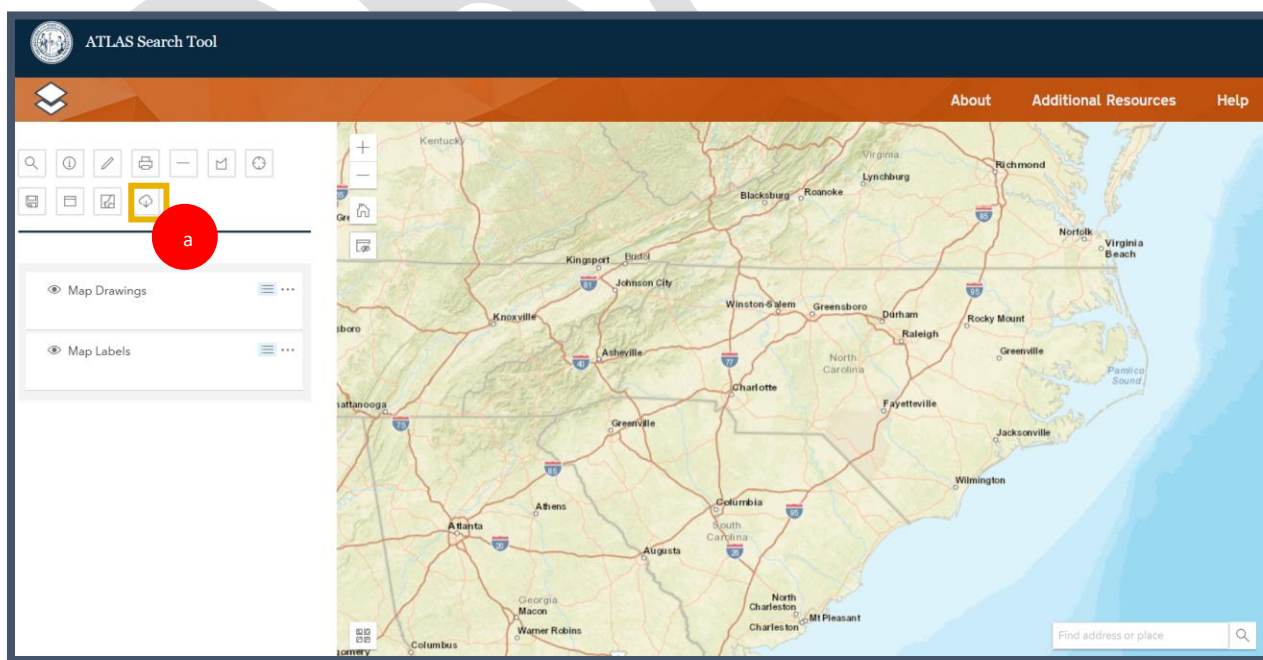
2. Selecting layers: select the layers to be viewed or downloaded. Options for layer selection:
  - a. Search for layers by category or keyword.
  - b. Click on the Identify Feature icon to access information and identify features on the map.
  - c. Save a combination of layers that you selected from the layer search by using the Save Layer Selection tool.
  - d. Layer Selections is used to add NCDOT templates or previously saved list of layers to your map. Templates are pre-set layers created by the ATLAS Business Team.



3. Add labels/geometric figures and measure: add graphics or take measurements on the map.
  - Options for adding labels/images and measuring on the map:
    - a. Use the Draw tool to add points, lines, polygons, and circles.
    - b. Select the Measure Distance icon to measure the distance between any two points.
    - c. Select the Measure Area icon to measure the area of a drawn selection.



4. Download layers: download the GIS layers. Options include:
  - a. The Download Data tool allows you to download your data, clipped to your study area, in either SHP, GDB, or DGN formats.





# ATLAS Screening Tool

The Screening Tool is used to view and generate a report of resources within a study area using a subset of GIS layers. Screening templates are available that have pre-selected multiple layers for specific topics or reports.

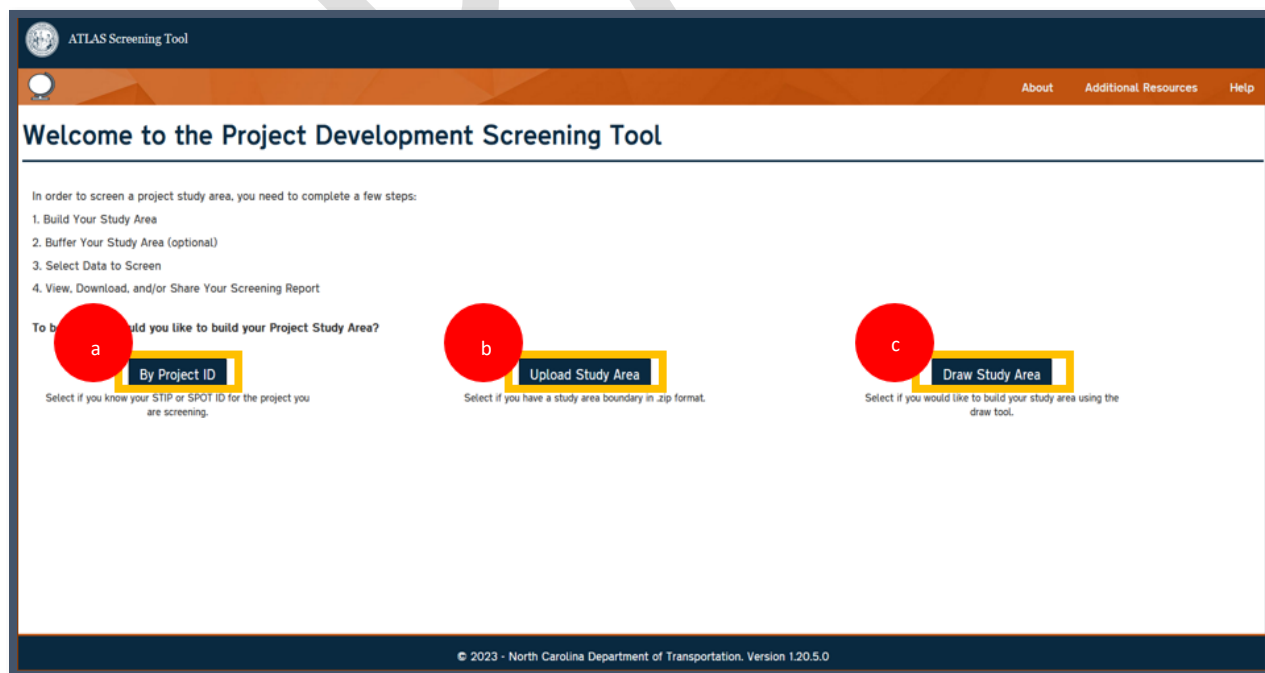
To access the Screening Tool, you must login using your NCID username and password. ATLAS Screening can be accessed four different ways:

- Via the Connect home page
- Via Preconstructions home page
- Via the Project Site
- Via the Direct URL: [Screening Tool](#)

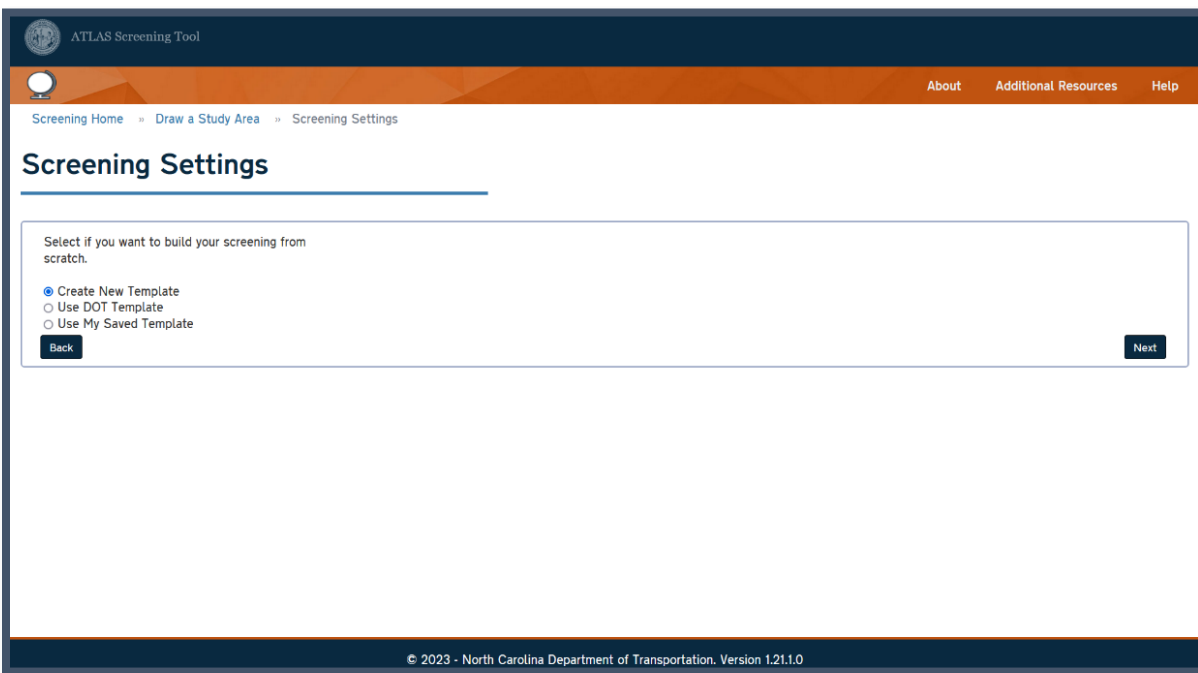
## ATLAS Screening Actions

With the Screening Tool, there are three key actions that you can perform in the tool:

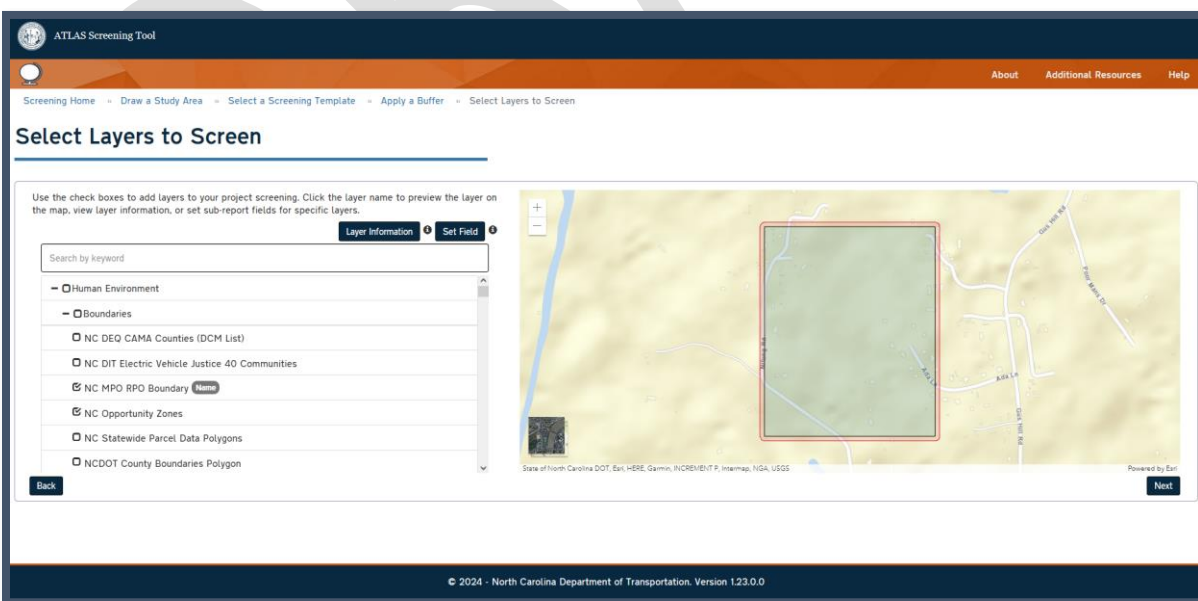
1. Identify key features in a study area in one of three ways:
  - a. By Project ID, which screens by using a project ID such as the STIP or SPOT number.
  - b. Upload a zipped shapefile of a previously developed study area (no larger than 10 sq. miles).
  - c. Draw Study Area which is useful to screen on a drawn line, drawn shape, or identify a point that can be buffered to create a study area to screen.



2. After identifying your study area, customize screenings to fit a subject matter by selecting GIS layers to screen.
  - a. Layers can be individually selected, or you can select a template. Templates serve as a framework to guide the selection of GIS layers during the screening process. Template options include creating a new template, using a DOT template, or using a previously saved template. then modify the GIS layer selection.
  - b. After a template is identified, you have the option to apply a buffer, and then modify



the GIS layer selection.



3. Screening Reports are built and available for download after adding a report name and clicking Screen Your Project. All downloaded reports include standard information on the first page:
  - a. Date, report name, description, county, and NCDOT division of your study area
  - b. The study area size and buffer size entered by the user
  - c. The ecoregion, hydrological code (HUC), if the study area is in a Coastal Act Management Area (CAMA), if riparian buffer laws apply based on the river basin, and there is an airport with four miles
  - d. A map showing the location of the study area and buffer

## Project Development Screening Report

This report is for high-level screening purposes only. Staff and consultants must continue to adhere to NCDOT standard operating procedures including, but not limited to, ETRACS requests and field validations.

<p><b>Report Date:</b> 10/25/2023</p> <p><b>PDR Report - Draft</b></p> <p>Draft Report of the new PDR Screening Template</p>	
<p><b>County:</b> Wake</p> <p><b>Division:</b> 5</p>	
<p><b>Study Area Size:</b> 71.3 Acres</p> <p><b>Buffer Size:</b> N/A</p>	

<b>EPA Level III Ecoregion:</b> Piedmont	
<b>EPA Level IV Ecoregion:</b> Northern Outer Piedmont	
<b>HUC8:</b> 03020201	
<b>Riparian Buffer:</b> Neuse	
<b>CAMA:</b> No	
<b>Airport within 4 miles:</b> Yes	

The remaining page(s) in the Screening Report lists all the layers screened, a count of features intersecting the study area, total coverage of features within the study area, and the distance to the nearest feature from the study area are identified for each layer.

# ATLAS Workbench Tool

The Workbench Tool is used to upload and find final project deliverables and track important project information. Using the Workbench provides a way to quickly direct users to the final version of deliverables and ensures data governance is maintained for all project files. ATLAS Workbench is a project-based data and document governance platform. It is designed to create a central repository for final project deliverables identified in the Project Delivery Network (PDN), project-specific geospatial data, and qualitative question associated with a project.

Workbench includes two key functions:

1. Final deliverables should be uploaded as they are completed so they are stored in the correct SharePoint/Connect folder
2. Qualitative questions should be answered as the information is available throughout the process, so that information is available for the entire project team.

ATLAS Deliverables include final documents, data, and/or files that are required to be uploaded into ATLAS Workbench web application. Not all ATLAS Deliverables are required on all projects. The NCDOT PM (Central, Division, or Technical Unit PM) will determine required work based on project scope and screenings. Files uploaded to ATLAS must follow the ATLAS Standards. For a more detailed guide for uploading final project documentation and spatial data to the ATLAS Workbench, please review the [ATLAS Workbench Standard](#) document.

When you upload a file to ATLAS Workbench, it automatically saves the file to the project's Scoping or Preconstruction project site on Connect. Uploading these files to ATLAS Workbench ensures that files are saved with the correct naming convention and correct metadata and key document tags are assigned in the project record. For a comprehensive list of ATLAS Workbench final deliverables, please view the [ATLAS Workbench Comprehensive List](#).

PDN Stages incorporated into ATLAS Workbench include:

- Project Initiation: Uploaded project records are saved to Connect Scoping
- Preconstruction: Uploaded project records are saved to Connect Preconstruction

# Navigating to ATLAS Workbench

Workbench is a project-specific application, and all information shared throughout Workbench is tied to the specific project. This requires users to access Workbench by going to the specific project through Connect. In order to access Workbench, users must be logged into the Connect project site. Once a specific project is selected, ATLAS Workbench is found on either the left ribbon under “ATLAS Tools”, or under the “ATLAS Tools” collapsed menu in the center of the screen.

The screenshot displays the ATLAS Workbench interface for a project under 'Division 09 Preconstruction' and 'U-0004'. The left sidebar contains several menu categories: 'Preconstruction Home', 'Precon Dashboard', 'Project Site' (with sub-items like Change Report, Recently Modified, Key Documents, Project Contacts, Email Project Contacts, Project Info U-6004, Project Structures), 'Project Management' (with sub-item Project Schedule), 'Precon Tools' (with sub-items Pay Items & Quantities, Project Commitments, Submittal Tracker, Avoidance and Minimization Tracker), 'Processing Requests' (with sub-items Grant Consulting Firm Access, Grant Municipality Access, Lock/Unlock Projects, Unlock Pay Items), and 'Reference' (with sub-items Preconstruction Help, Discipline Specific Links). The 'ATLAS Tools' category is highlighted with a yellow box and a red circle containing the number '1'. Below it are links for 'ATLAS Workbench', 'ATLAS Data Search Tool', and 'ATLAS Screening Tool'. The main content area features a red 'NOTICE' about library locking, a list of tool categories (General, Disciplines, Collaboration, LET Preparation, Post LET, and ATLAS Tools), and a 'Consulting Firm Access Summary' table. The 'ATLAS Tools' category is also highlighted with a yellow box and a red circle containing the number '2'. The table lists roles and firm names for various project components.

**NOTICE:** All libraries will be locked approximately 7 weeks prior to letting to ensure there are no changes during plan checking and finalizing everything is uploaded and marked before locking. This includes final sealed plans, final sealed special provisions, labeling key document For any changes or additions needed after this date, please contact the Contract Office for central let projects [finalplans@ncdot.gov](mailto:finalplans@ncdot.gov), or I let projects.

- General
- Disciplines
- Collaboration
- LET Preparation
- Post LET
- ATLAS Tools
  - ATLAS Workbench  
Use the Workbench to monitor project status, submit your final project documents, and upload spatial deliverables.
  - ATLAS Data Search Tool  
Use the Data Search Tool to access GIS datasets from multiple sources in one single search interface.
  - ATLAS Screening Tool  
Use the Screening Tool to analyze a project study area for natural and human environment impacts based on key GIS datasets.

**Consulting Firm Access Summary**

Role	Firm Name
Utilities	CH Engineering PLLC
Roadway Design	Michael Baker Engineering Inc
Roadway Design	Pinecone Transportation Professionals PLLC
Project Management	Michael Baker Engineering Inc
Project Management	Pinecone Transportation Professionals PLLC
Utilities	Michael Baker Engineering Inc
Utilities	Pinecone Transportation Professionals PLLC
Right of Way	Michael Baker Engineering Inc
Right of Way	Pinecone Transportation Professionals PLLC
Location and Surveys	Wadelynn Geospatial LLC
Location and Surveys	NV5 ( formerly CALYX Engineers and Consultants Inc)
Location and Surveys	O. R. Colan Associates LLC
Location and Surveys	Mattern & Craig Inc

# ATLAS Workbench Components

Once logged into Workbench, users will see the main components of the tool:

1. Header: links to other ATLAS tools and Additional Resources.
2. Basic Project Info Page: located on the right of the screen and includes the basic information of the selected project the user has accessed.
3. Left Side Bar: information is stored in Workbench by Discipline, listed on the left side of the screen. The discipline list is used to navigate to the specific discipline to upload or find the associated deliverables. This section also includes buttons for Content Search, Check Status, and Generate Reports.
  - a. Content Search function allows users to search for a word or phrase on a Discipline Page. The search returns a match if the text is found in a discipline name, a section, a control text, or a file name. Search results are case sensitive.
  - b. Check Status function updates the checkmarks for each page to indicate whether controls on the tab have been completed. Before performing Check Status, all checkmarks are black. After performing Check Status, the stats checkmarks change color based on different rules:
 

# of required controls on tab	# of completed controls on tab	Checkmark color
None	None	Red
1 or more	None	Red
None	1 or more	Green
1 or more	All required controls	Green
1 or more	Some, not all, required controls	Yellow
  - c. Generate Reports function currently has two types of PDF reports that can be generated: Preliminary CE Checklists and Workbench Reports. The CE Checklist report includes responses to Yes/No controls associated with a CE Type 1, Type 2, or Type 3 question. Workbench Reports display controls along with answers and links to uploaded files for all Workbench tabs or selected Workbench tabs.
4. Saving and Additional Tools: located at the bottom of each data entry area, users can view a PDF of that page and access other tools.
5. Project Information from SAP: Relies on the presence of WBS Element of TIP Number in Preconstruction Site Request. This may include links to Precon Tools such as Project Numbers, Estimates, Key Milestones, and Contacts.

The screenshot displays the ATLAS Workbench interface. At the top left, the logo and text "ATLAS Workbench" are visible, with a red circle labeled "1" next to it. Below the header, there are navigation icons and a search bar. The main content area is divided into two columns. The left column contains a "Content Search" and "Check Status" section, followed by a "Generate Reports" button and a list of project tasks. A red circle labeled "3" is positioned to the left of this list. The right column is titled "Basic Project Info - U-6004" and contains a form with various fields. A red circle labeled "2" is positioned to the left of this form. Below the form, there are sections for "Project Information from SAP" and "Precon Tools". A red circle labeled "4" is positioned to the left of the "Precon Tools" section, which includes buttons for "Project Commitments" and "Avoidance and Minimization Tracker".

ATLAS Workbench

Content Search Check Status

Generate Reports

**General Project Information**

- Basic Project Info
- Project Management ✓
- NEPA and Agency Coordination**
- Project Scoping ✓
- Preliminary Environmental Considerations ✓
- Merger Pre Screening ✓
- Merger ✓
- LGA Coordination ✓
- Final Environmental Documentation ✓
- Human Environment**
- Air Quality ✓
- Archaeology ✓
- Community Characteristics Report (CCR) ✓
- Community Impact Assessment (CIA) ✓
- Historical Architecture ✓
- ICE/ICI ✓
- Noise Analysis ✓
- Public Involvement ✓
- Tribal ✓
- Natural Environment**
- Natural Resources ✓
- Permitting ✓
- Threatened & Endangered Species ✓
- Design**
- Bicycle, Pedestrian, & Transit ✓
- Geo-Environmental ✓

### Basic Project Info - U-6004

Project Name: U-6004

Project Description:

County:

Division: 09

TIP ID: U-6004

Prime Firm Name: Kimley-Horn & Associates

Funding Source: Federal

Is there a lead federal agency?  Yes  No

Agency Name: FHWA

Document Type: CEType3

#### Project Information from SAP

- + Project Numbers
- + Estimates Data
- + Key Milestones
- + SAP Contacts

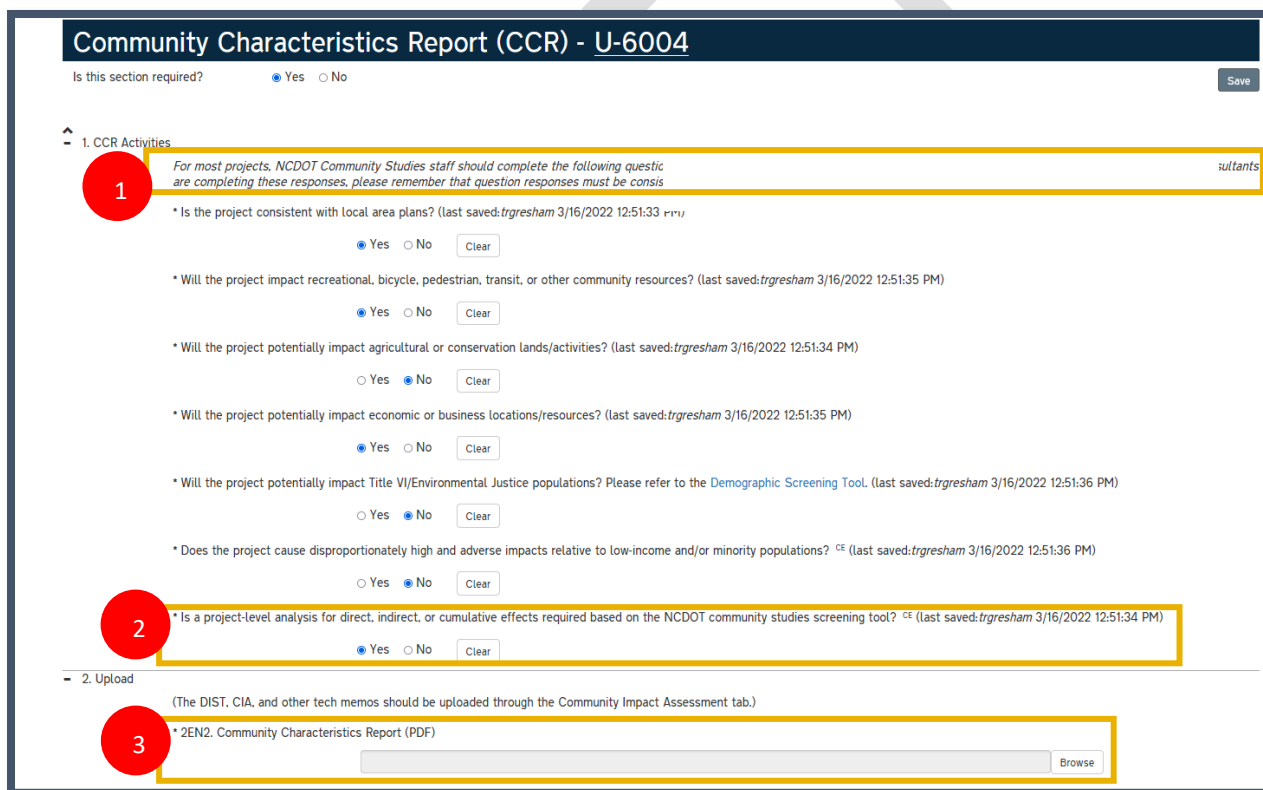
#### Precon Tools

Project Commitments Avoidance and Minimization Tracker

# ATLAS Workbench Discipline Tabs

Each Discipline tab is uniquely designed based on that group’s specific needs. Most discipline tabs include three different elements:

1. Information: Provides general information and guidance, and is purely instructional text
2. Qualitative questions: These are questions that help users understand potential issues, what has been completed, and when major milestones were completed. Qualitative questions can include Yes/No, Text, Date, Dropdown, or Multiple Select fields/controls.
3. Uploads: These are the final versions of important deliverables that together create the project record. As an external user, users can view and download uploaded document but cannot upload any of their own. Uploads can include PDF, XLSX, PPTX, DGN, Document Set, Generic ZIP, or SHP ZIP controls.
  - a. A “CE” designation after a question indicates that it is include on the CE Reports, which can be automatically generated through Workbench.



**Community Characteristics Report (CCR) - U-6004**

Is this section required?  Yes  No Save

**1. CCR Activities**

**1** For most projects, NCDOT Community Studies staff should complete the following question are completing these responses, please remember that question responses must be consistent

\* Is the project consistent with local area plans? (last saved:trgresham 3/16/2022 12:51:33 PM)

Yes  No

\* Will the project impact recreational, bicycle, pedestrian, transit, or other community resources? (last saved:trgresham 3/16/2022 12:51:35 PM)

Yes  No

\* Will the project potentially impact agricultural or conservation lands/activities? (last saved:trgresham 3/16/2022 12:51:34 PM)

Yes  No

\* Will the project potentially impact economic or business locations/resources? (last saved:trgresham 3/16/2022 12:51:35 PM)

Yes  No

\* Will the project potentially impact Title VI/Environmental Justice populations? Please refer to the [Demographic Screening Tool](#). (last saved:trgresham 3/16/2022 12:51:36 PM)

Yes  No

\* Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations? <sup>CE</sup> (last saved:trgresham 3/16/2022 12:51:36 PM)

Yes  No

**2** \* Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool? <sup>CE</sup> (last saved:trgresham 3/16/2022 12:51:34 PM)

Yes  No

**2. Upload**

(The DIST, CIA, and other tech memos should be uploaded through the Community Impact Assessment tab.)

**3** \* 2EN2. Community Characteristics Report (PDF)