ATLAS QUICK REFERENCE GUIDE

Version 1

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This is a living document and updated regularly.

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ATLAS Overview

ATLAS is an acronym for Advancing Transportation through Linkages, 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 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 ATLAS Search (from ATLAS Screening) or to ATLAS Screening (from ATLAS 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. 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.

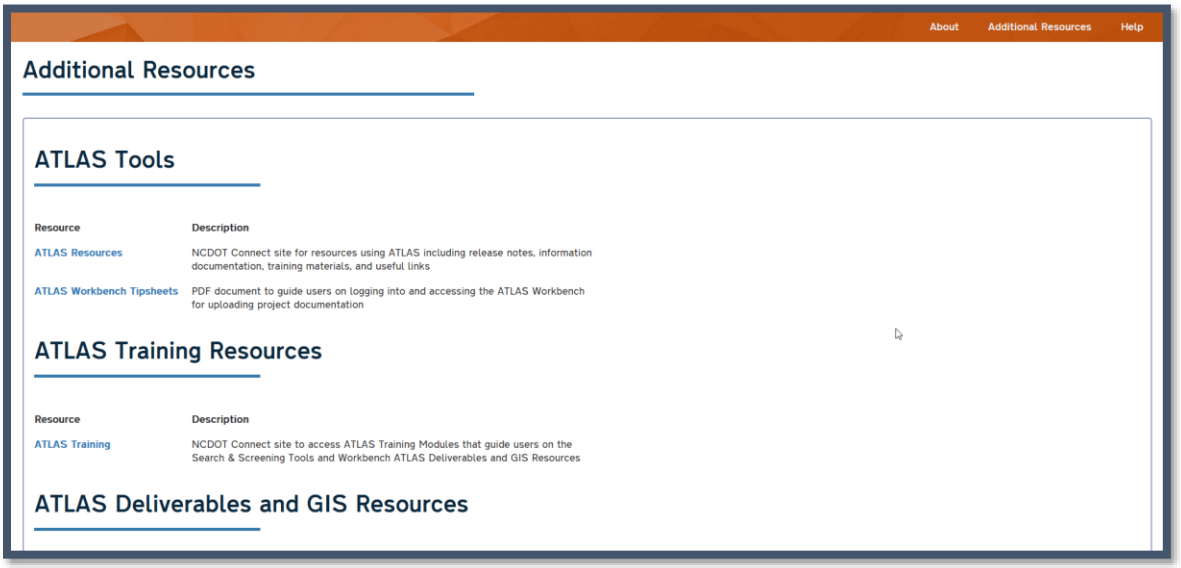

Figure 1: Additional Resources page can be accessed from any ATLAS tool and provides useful links to various ATLAS Resources.

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.

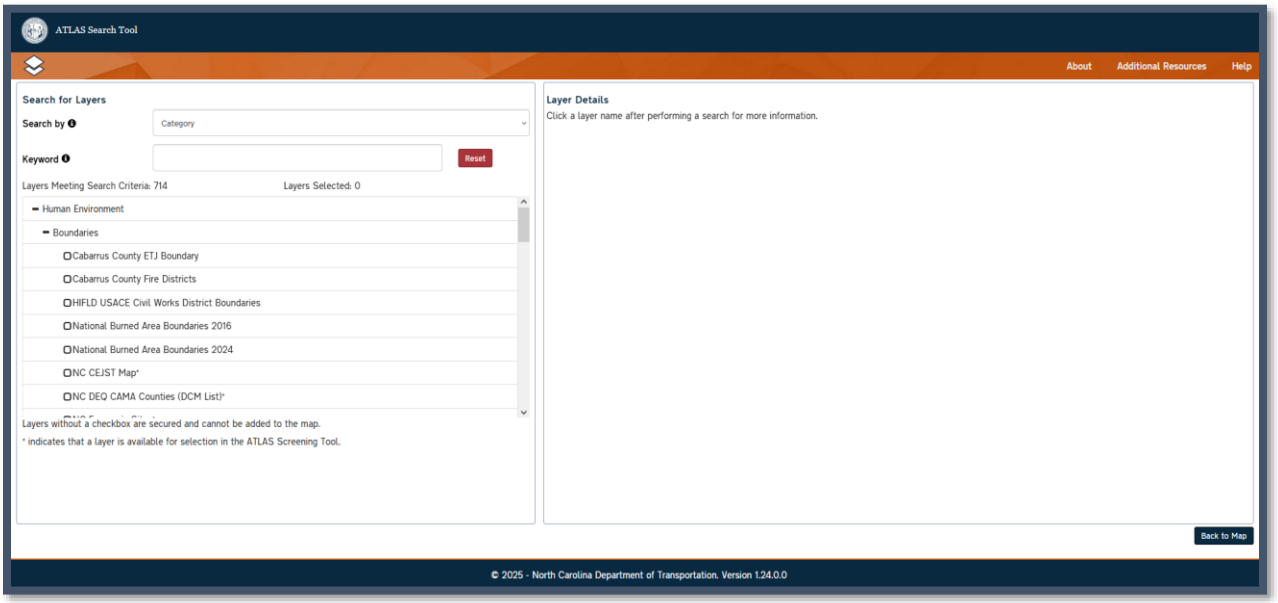

Figure 2: Layers can be searched and viewed from the ATLAS Search tool.

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 areas
- Fish and aquatics
- Flood data
- Hydrography
- Wetlands
- Land cover
- Mitigation
- Physiography
- Threatened and Endangered Species
- Water quality

To find more information about a layer in the Screening Tool, select the Layer Information button on the Select Layers to the Screen page. 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.

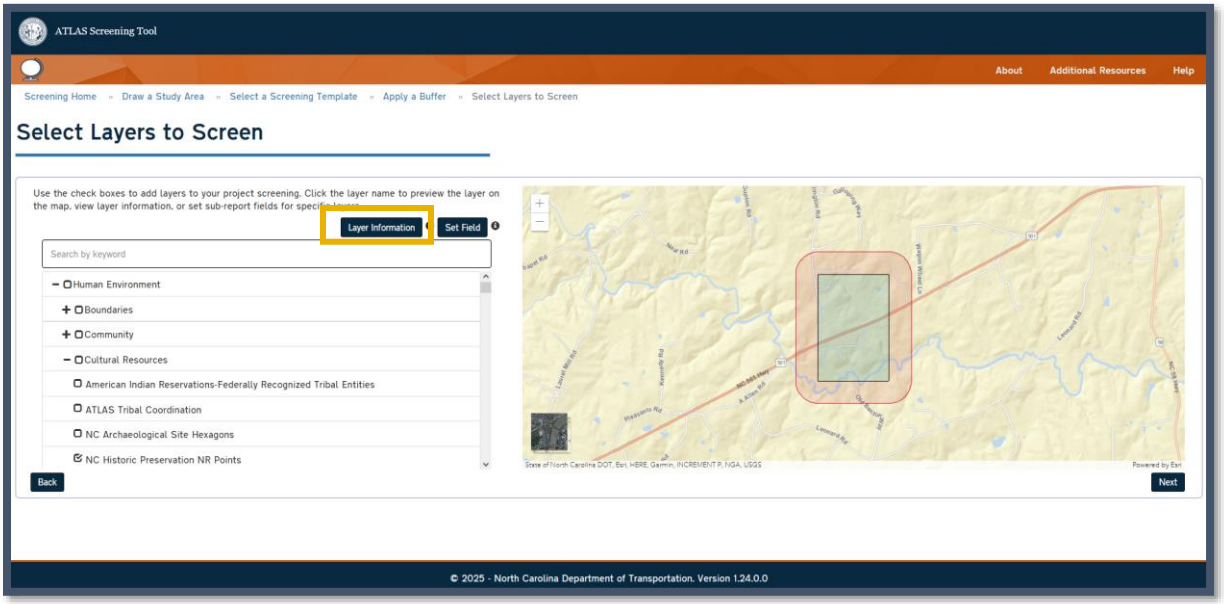

Figure 3: Select Layer Information button after selecting a layer to find more information on a specific layer withing ATLAS Screening

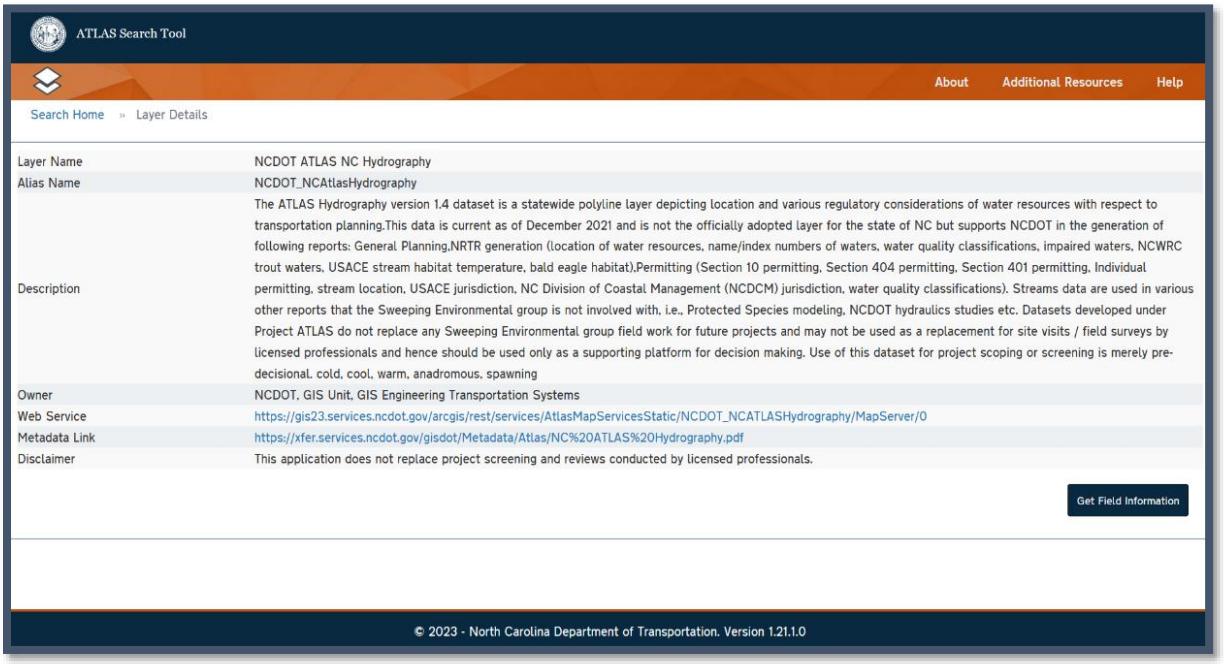

Figure 4: Within ATLAS Search, by selecting Detailed Information, you will find specific information about a layer. Here, NCDOT ATLAS NC Hydrography layer displays the layer name, alias name, description, owner, web service and metadata links, and disclaimer.

ATLAS Templates are preloaded layers developed by NCDOT disciplines and can be used in both ATLAS Search and ATLAS Screening. 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. An important template to note:

- 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. Users are encouraged to use this template if they would like to screen "all" layers for potential impacts because it provides this information but runs more quickly and reliably than choosing all available layers.

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: https://gis27.services.ncdot.gov/GISTransSearch/Search/Map

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 uploading 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 using a polygon, square, or circle areas less than 10 square miles.

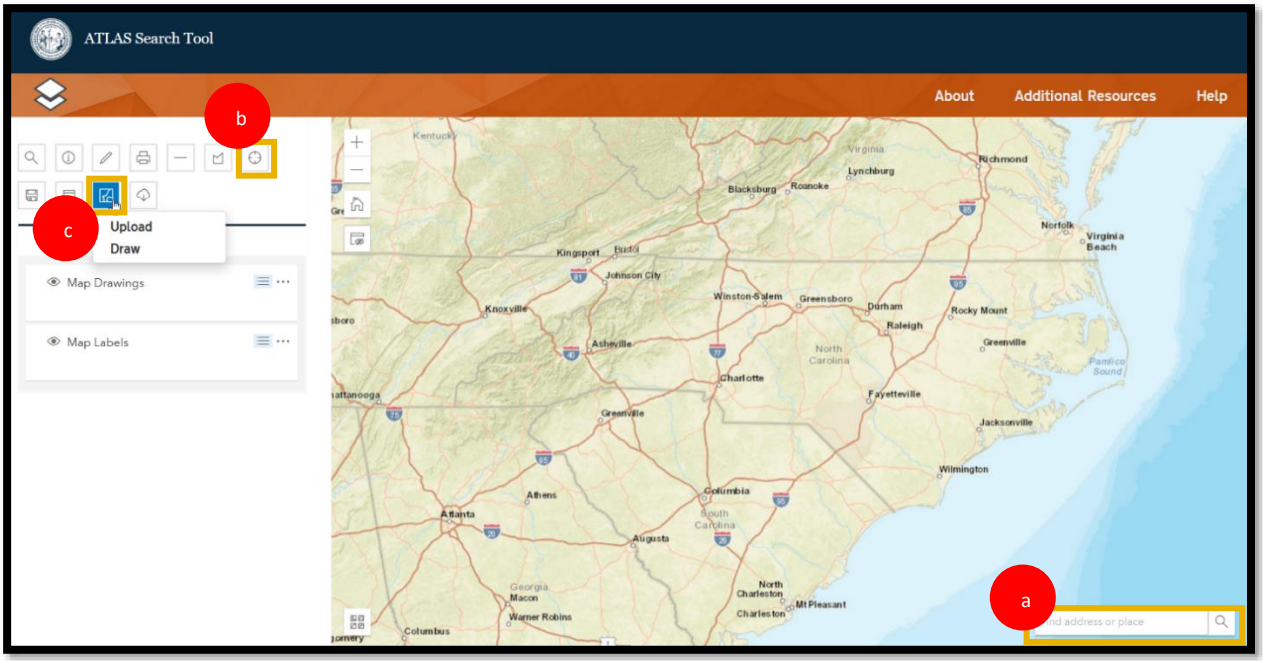

Figure 5: Details the ways to select an area of interest.

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. If you start with a template, you can then add or remove layers.

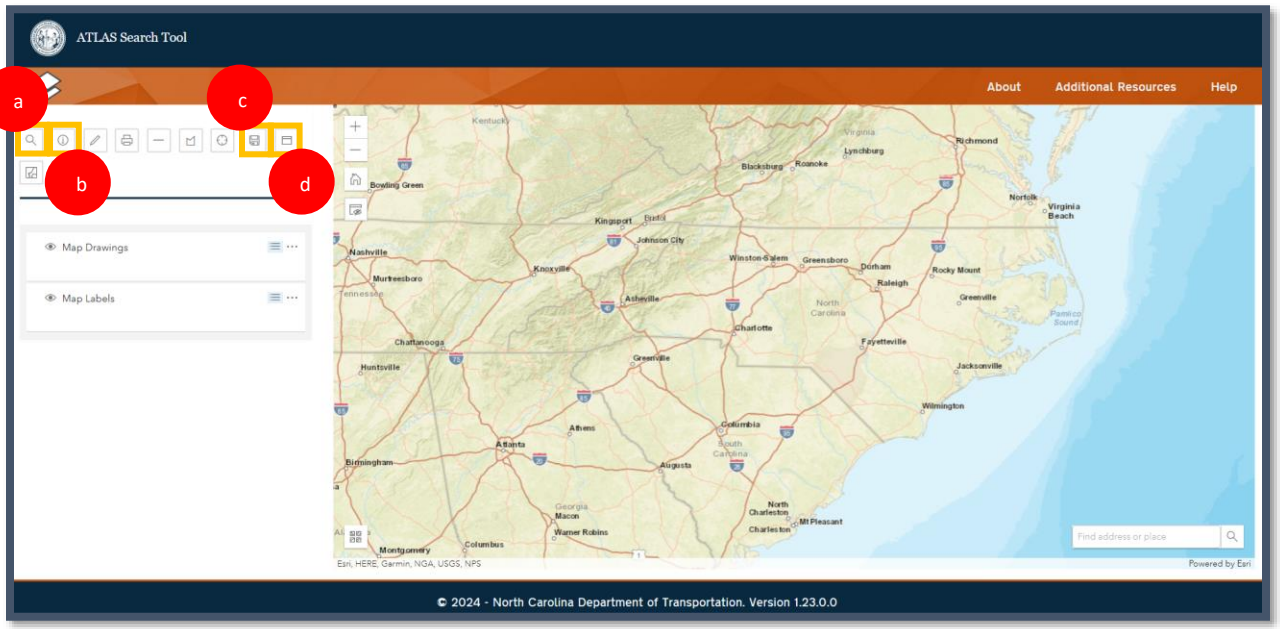

Figure 6: Details the options for layer selection.

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.

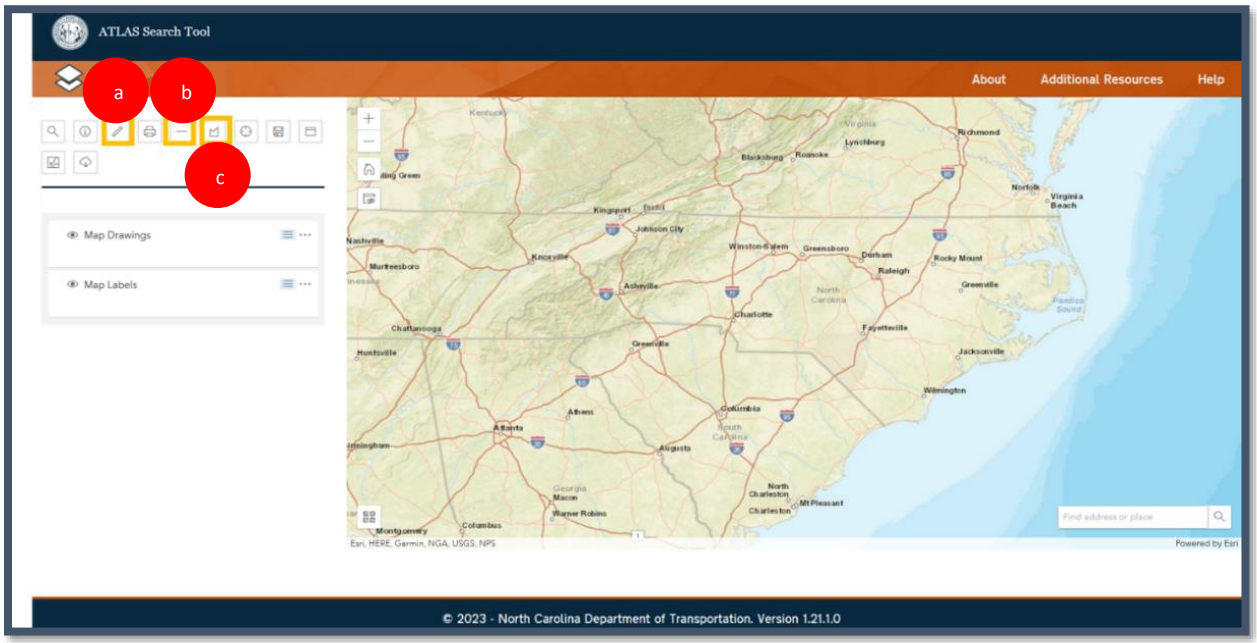

Figure 7: Details the options for adding labels and how to measure on the map.

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.

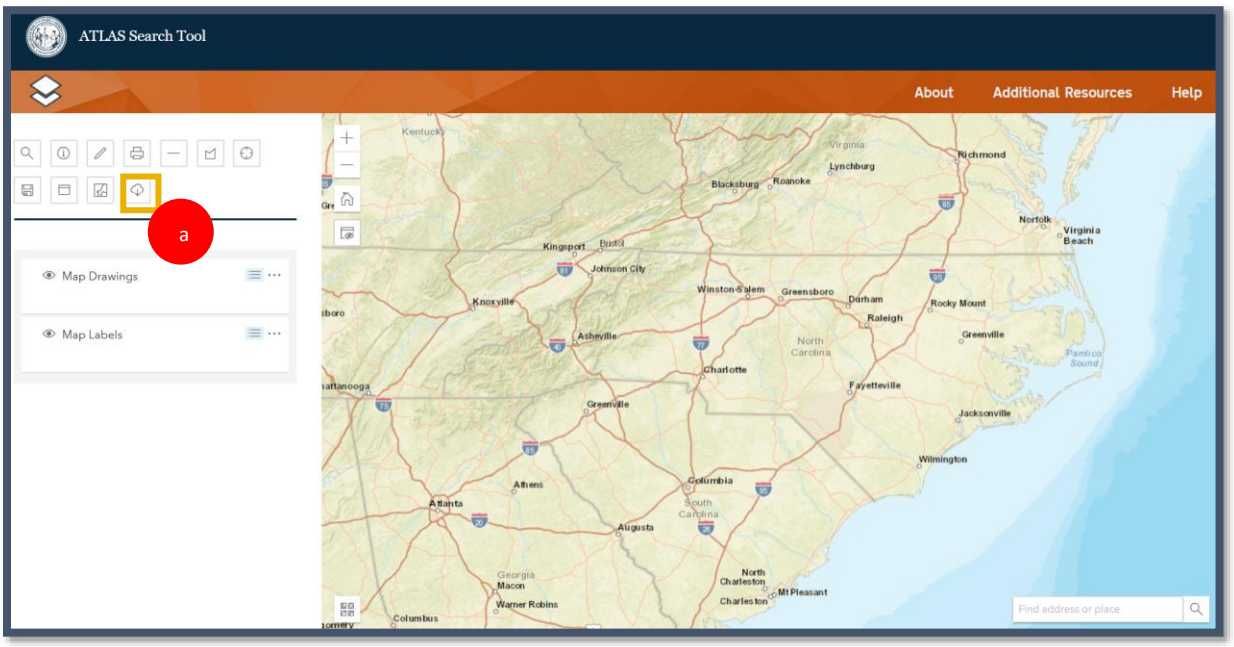

Figure 8: Details how to download GIS layers.

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: https://gis27.services.ncdot.gov/GISTransScreen/Screening/Home

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 when you have to screen on a drawn line, drawn shape, or want to identify a point that can be buffered to create a study area to screen.

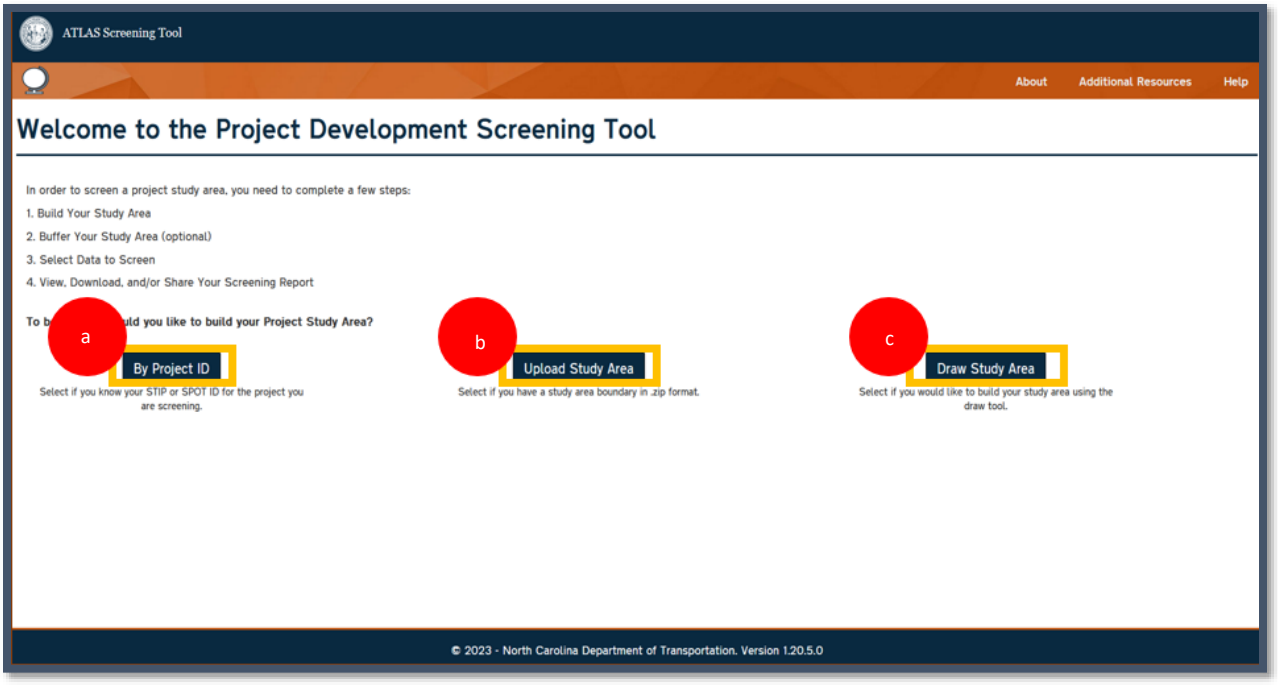

Figure 9: Shows the options for how to build a Project Study Area in ATLAS Screening.

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. Template options include creating a new template, using a DOT template, or using a previously saved template. Once a template is selected, users can 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. A buffer is required for points or lines.

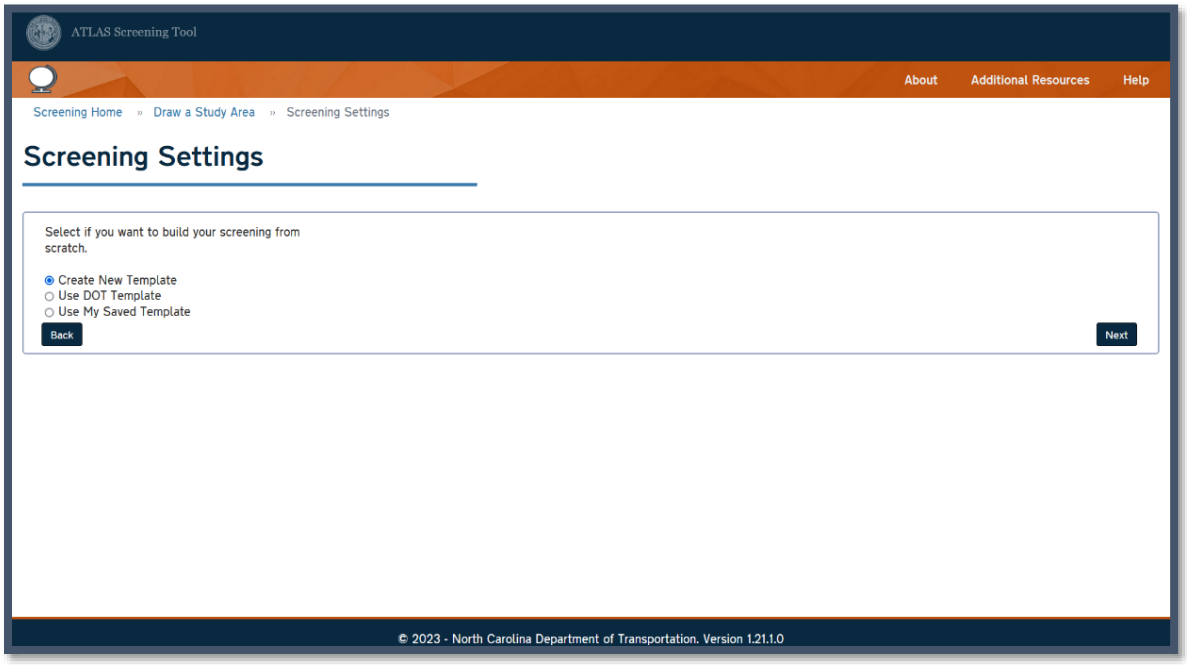

Figure 11: Details the options for building a screening from scratch.

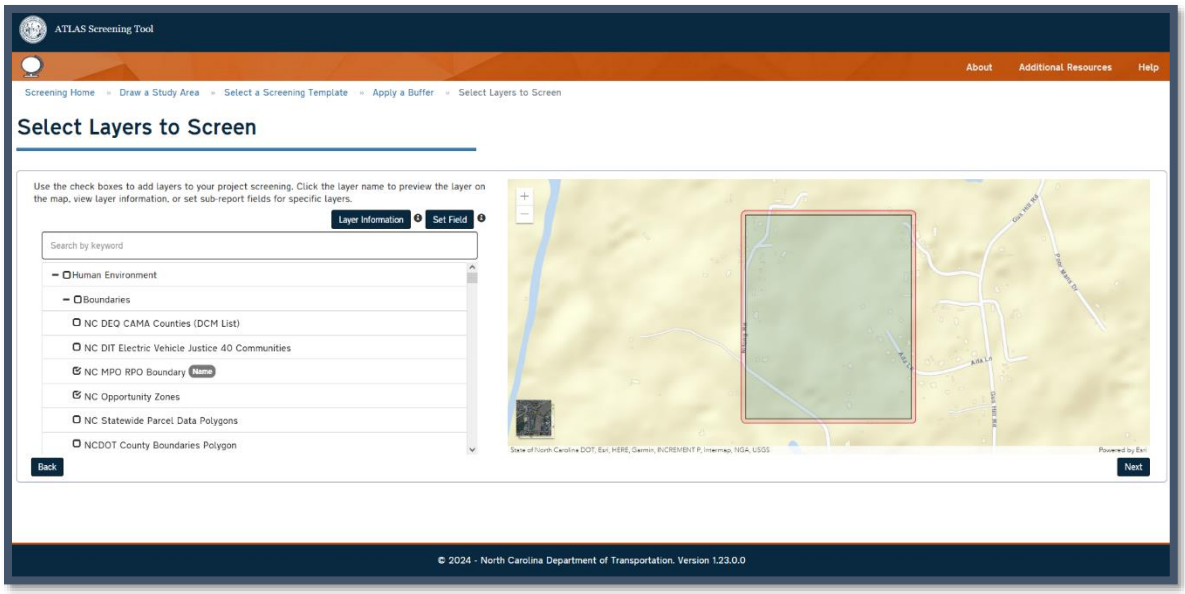

Figure 10: Details the option for adding or removing layers if a template is being used to screen.

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 if there is an airport within four miles
    d. A map showing the location of the study area and buffer

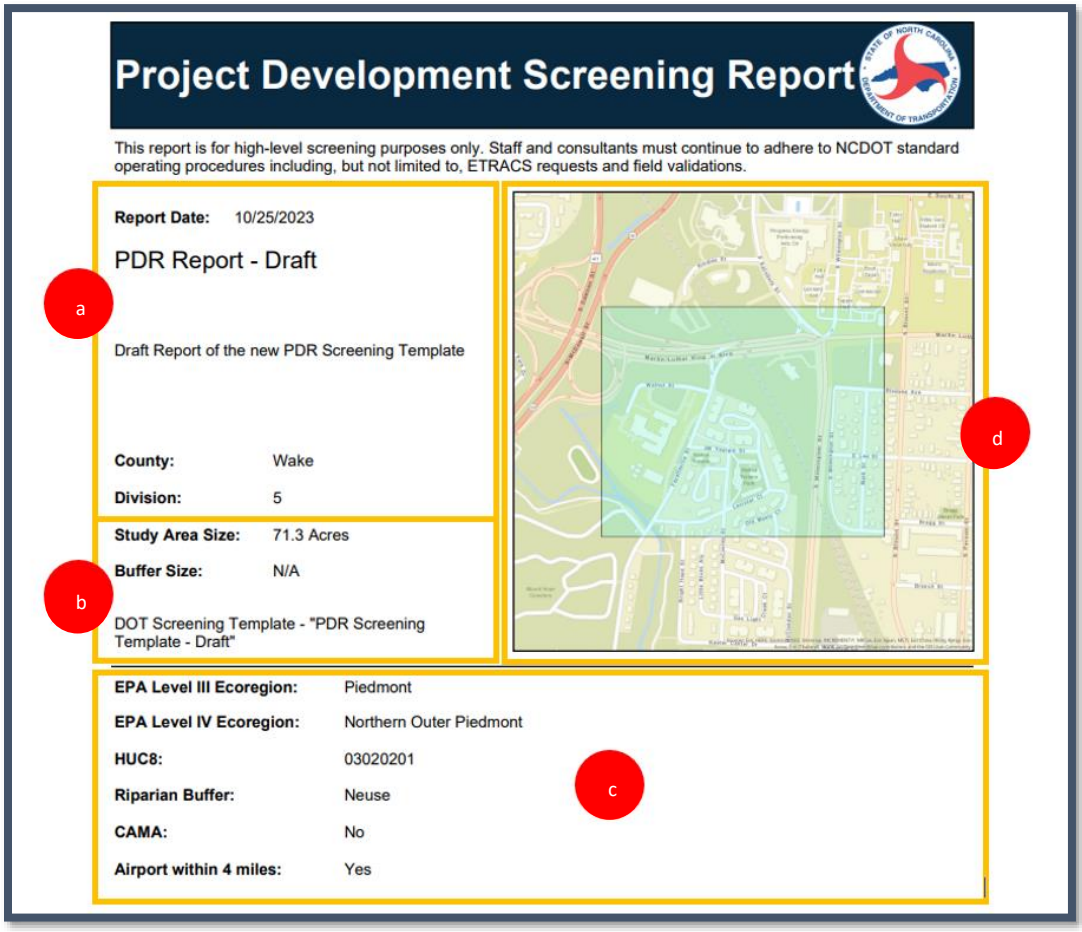

Figure 12: Details the first page of a downloaded screening report from ATLAS Screening.

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 purposes:

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.

These purposes are completed through the use of controls. Controls provide information, questions, or deliverables where answers or uploads are performed within ATLAS Workbench.

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 1. the left ribbon under “ATLAS Tools”, or 2. under the “ATLAS Tools” collapsed menu in the center of the screen.

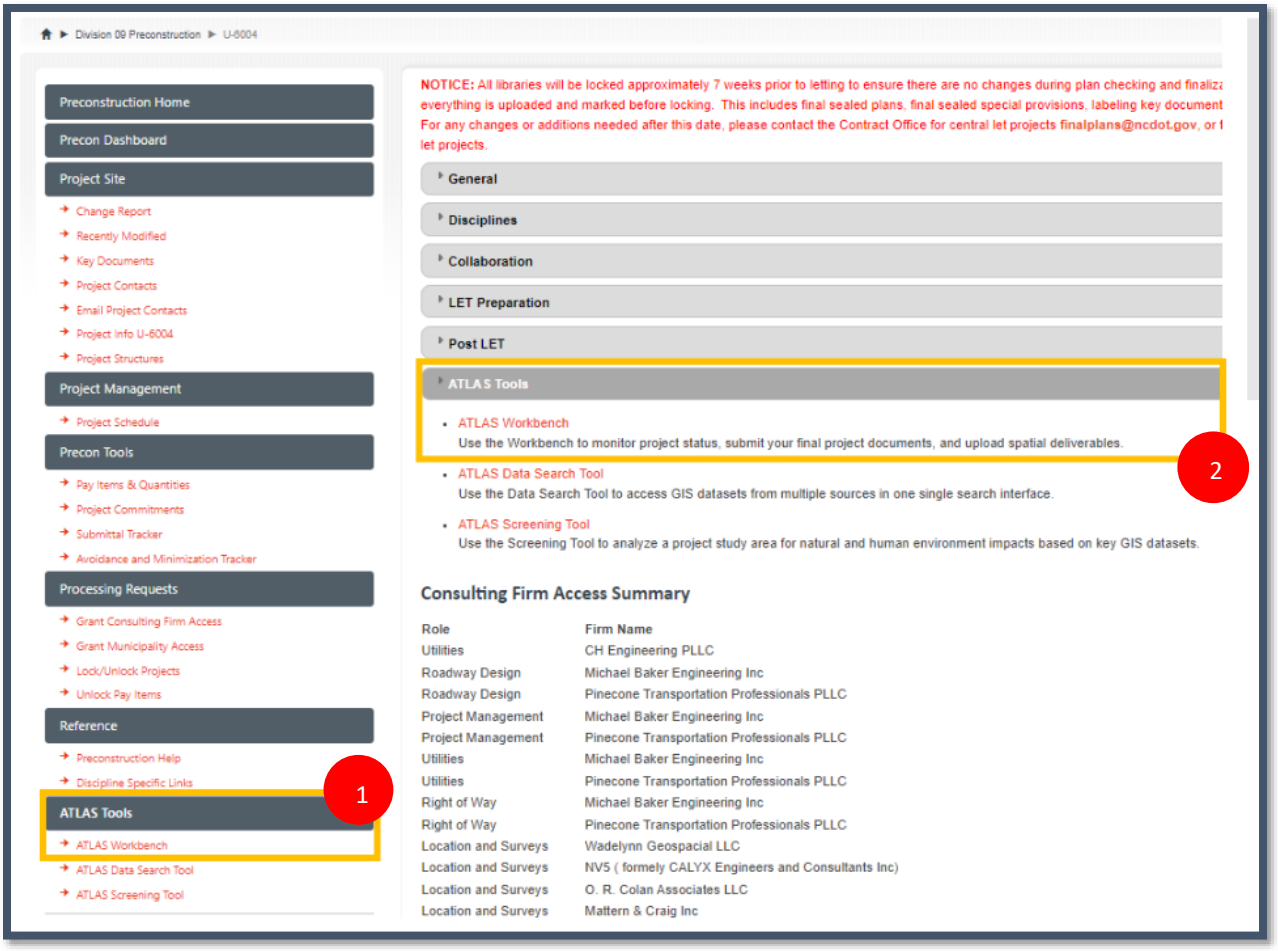

Figure 13: Details the options to navigate to ATLAS Workbench from a Project's Connect site.

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 other helpful links, such as About or Help.
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 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.

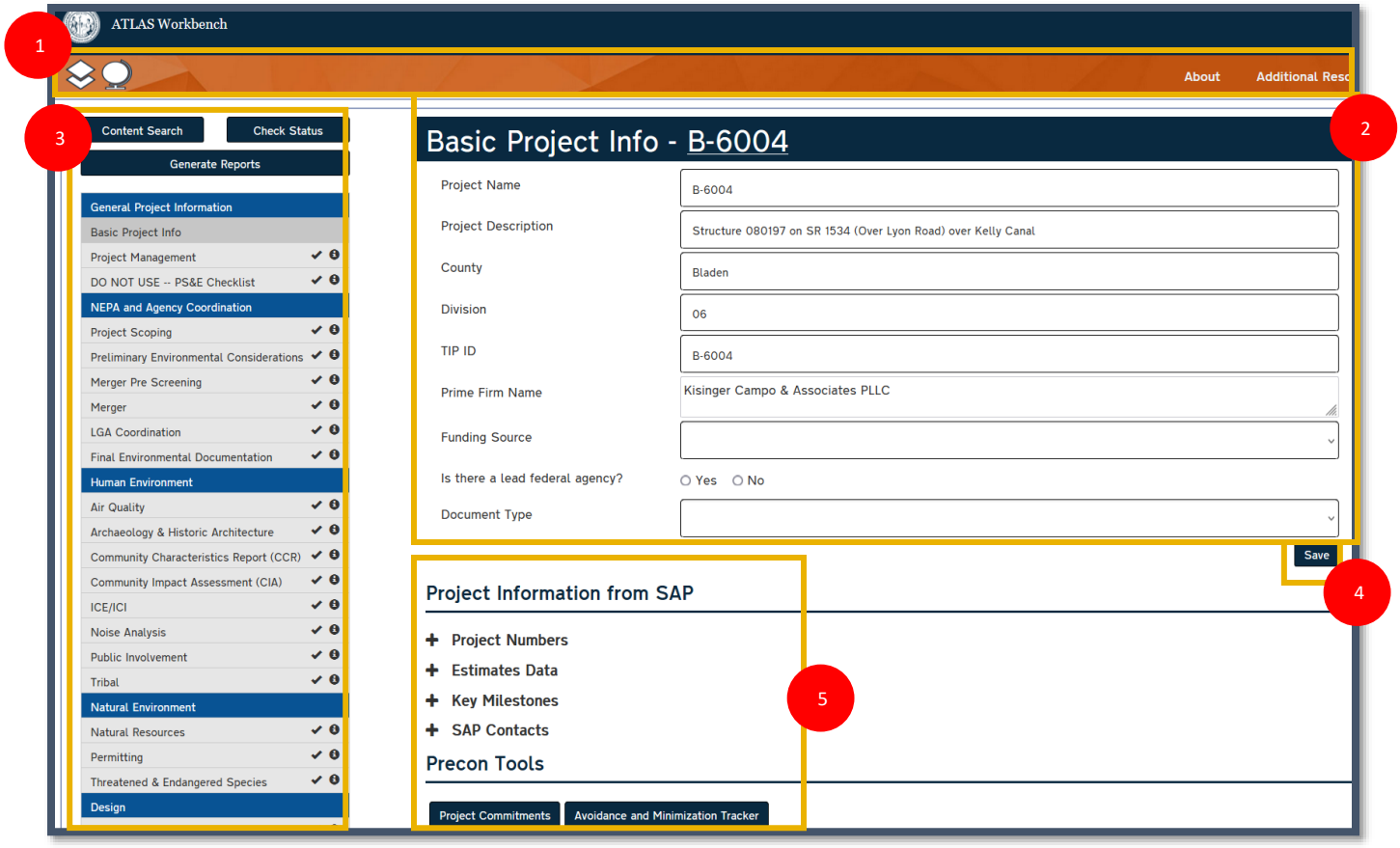

Figure 14: Details the main components of ATLAS Workbench.

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 documents but cannot upload any of their own. Uploads can include PDF, XLSX, PPTX, DGN, Document Set, Generic ZIP, or SHP ZIP files.
    a. A "CE" designation after a question indicates that it is included on the CE Reports, which can be automatically generated through Workbench.

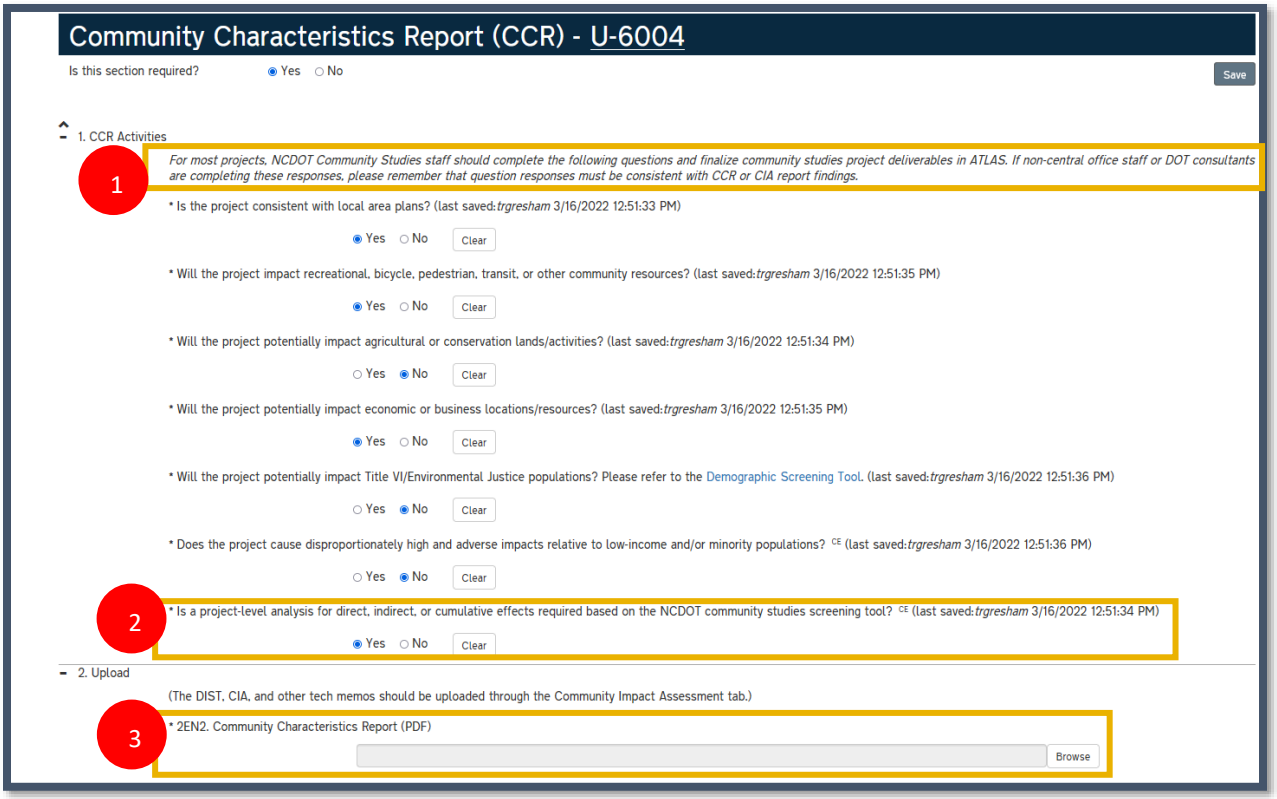

Figure 15: Details the different controls withing ATLAS Workbench.