Climate-Smart Boston

DECISION SUPPORT TOOL TRAINING GUIDE

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GETTING THERE

Accessing the site

- Use the following link to connect to the Climate-Smart Boston Landing Page

    - https://web.tplgis.org/Boston_CSC/

- Use the following link to connect to the Climate-Smart Boston online mapping site:

    - https://web.tplgis.org/Boston_CSC/secure/

Logging into the site

- A username and password is required to access the site, which you can create directly from the link on the login page.
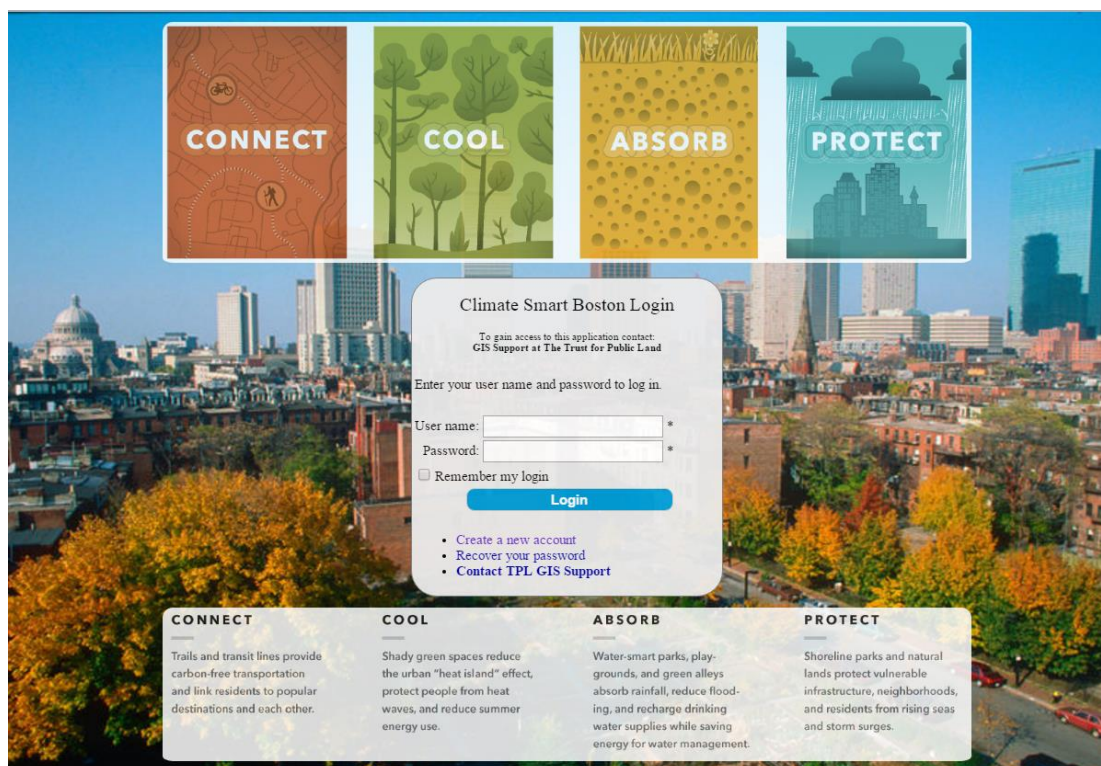
- Once you've created a login username and password, you'll be able to access the site using that login each time.

Navigating the Map

Zoom & Pan

- On the left-hand side of the map, click the (+) sign to zoom in and the (-) to zoom out

- To zoom in to a particular area hold down shift, click your mouse on one corner of the desired extent, and drag your mouse to the opposite corner of the desired extent.

- Click and drag your mouse to the right or left to pan around the map (adjusting your view)

Note: As you change the viewer extent the map detail changes. As you zoom in the map becomes more detailed.

- Click the [home] button to return to the extent of the study area.

- Click the [location] button to show your location on the map

Change the map background

- Click the [Basemaps ▾] tab to the left of the map. Then click the checkbox next to the basemap you desire.

Interacting in the Map

Selecting features (including parcels)

Most of the overlay layers included in the tool have attribute information that you can access through the map.

- Turn on the any layer in the Overlay Data section.

- Click on the map.

- An information box will appear that describes the feature(s) that you clicked.

- *Note:* If multiple layers are turned on, the one that is highest in the table of content will be identified first.

- If there is a [▶] in the info box title you have identified multiple features. Click [▶] to view information on the other selected features.
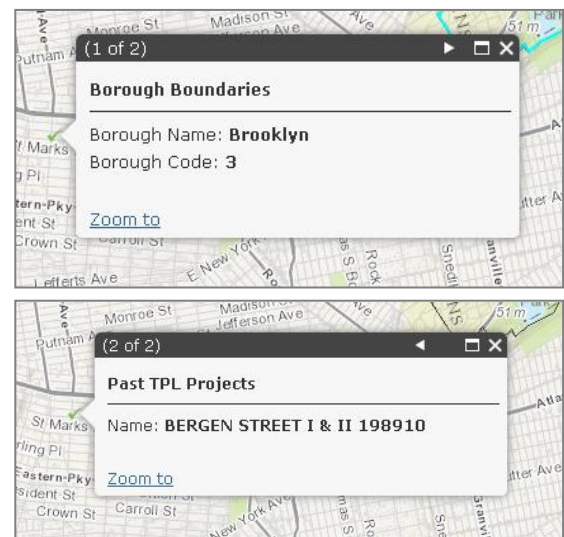
Creating Parcel Reports

When selecting parcels, you can also create a parcel profile report from the pop-up dialog. These custom reports provide more detail about the climate priorities and physical characteristics of each parcel.

- Turn on the "Parcels" layer that's in the Overlay Data section. Parcels are scale dependent and will only appear once you have zoomed in.

- Once zoomed in and viewing the parcels click on a parcel to find out more information on it.

- You can create a Parcel Profile Report on individual parcels by clicking [Create Parcel Profile Report]. A Parcel Profile Report provides a detailed characterization of all modeled Climate-Smart Cities priorities and filtering criteria for an individual parcel.

- A download window will open. Click "Download File" to obtain the report.
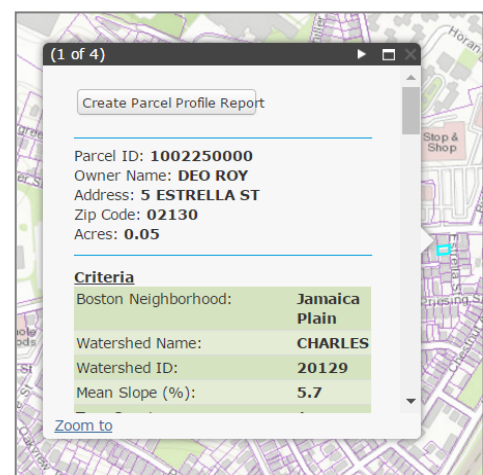
Interacting with the Data

On the left side panel there are a number of "functions" available. Click on the ▶ to open a tool if it is closed. This section will provide guidance for using each of the tools listed on the left hand side of the screen.

Layers

If you click on ▼ ☰ Layers you will see all the layers in the viewer, including all of the *Overlay Data* and *Analysis Results* collected for the tool. For both **overlays** and **analysis**, the layers are categorized:

- Each ☐ symbol indicates that there are multiple layers grouped under that heading. Click the ☐ to expand and see what layers there are.

- Click ⊞ to show the symbology for an individual layer.

Overlay Data
Overlay data provides important context for the region or study area across climate objectives. This data includes the base information used for analysis

- *Multiple* overlay layers can be turned on at once

Analysis Results
Analysis results model data to identify priorities across all Climate-Smart Cities objectives. All analysis layers are symbolized from beige to orange to red to signify moderate, high, and very high priorities.

- *Only one* analysis layer can be turned on at once.

- At the top of the analysis layers list there is an option to turn off all results layers. If at any point you would like to remove all the results click this.

### Layers Menu (transparency, layer swipe, metadata)
The layers menu provides tools that adjust the view of overlay data and analysis results you see on the map as well as metadata that provides information about all of the data included in the tool. There is an independent layers menu for overlay data and analysis results. Click on the ☰ to the right of the *Overlay* Data or *Analysis Results* headings to access the following tools:

- *Transparency slider:* Changes the transparency of the overlay data so that you can see mapped features underneath the overlay data. Click the rectangular tab on the slider and hold the mouse down to drag it to the left or right.

  o Experiment with different transparency levels. Notice that the transparency level of <u>all</u> overlay data changes as you change the transparency level.

- *On/off functions: T*urn on all the overlay layers, turn them all off, review metadata, zoom to the layers, and layer swipe.
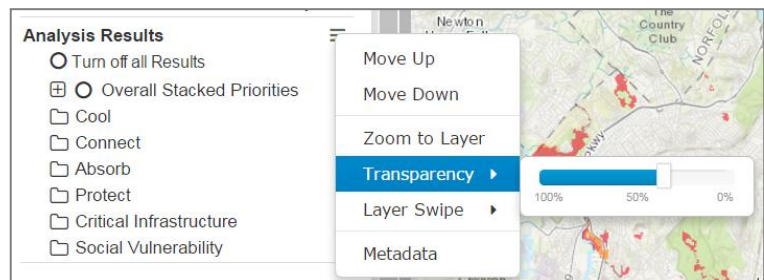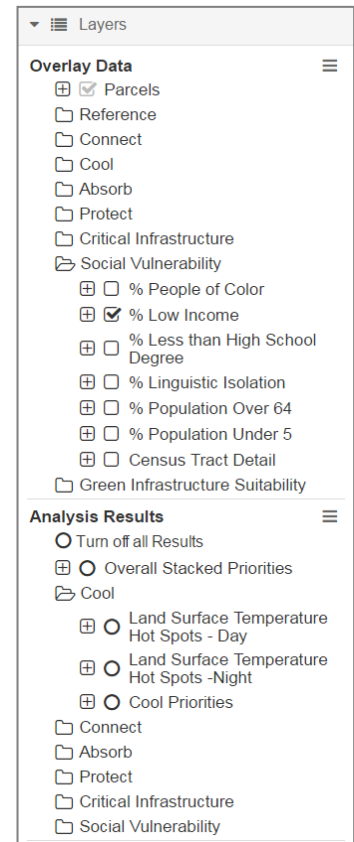
- *Layer Swipe:* Provides the capability to use a slider to see what the map looks like with a layer on or off

    o If you hover your mouse over the Layer Swipe you can either choose vertical or horizontal. A bar will appear in the viewer and you can slide it up/down or right/left depending on if you selected vertical or horizontal. Sliding this bar will show you what the map looks like with or without the data.
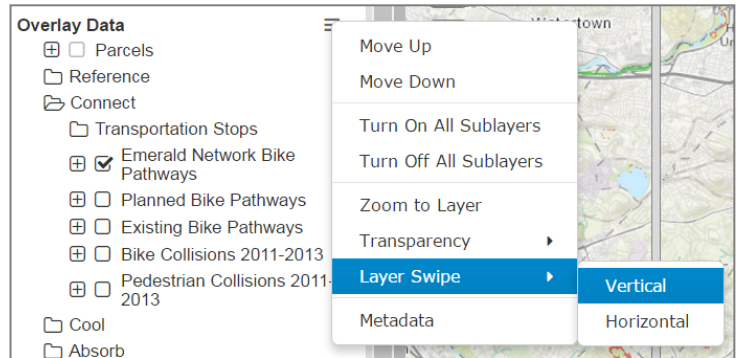

    o To exit *Layer swipe* mode, click on the "Exit Layer Swipe" box at the top of the map

- *Metadata:* Provides background information for all analysis results, including the input dataset, source, and year created, as well as a description of the methodology used to translate the data into a priority. Whenever you have a question about the data in the tool, open the metadata to learn more about it.

Scenario Weights

This tool allows you to combine Climate-Smart Cities objective priorities in different ways depending on the goals of your project or initiative.

- In the WEIGHTS tab weight the available options by dragging the slider bars for each objective your intended level. Once finished click the Run Analysis button.

- Once the analysis is complete (it takes about a minute), the tool automatically switches to the SCENARIOS tab and shows the results of the analysis on the map.
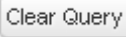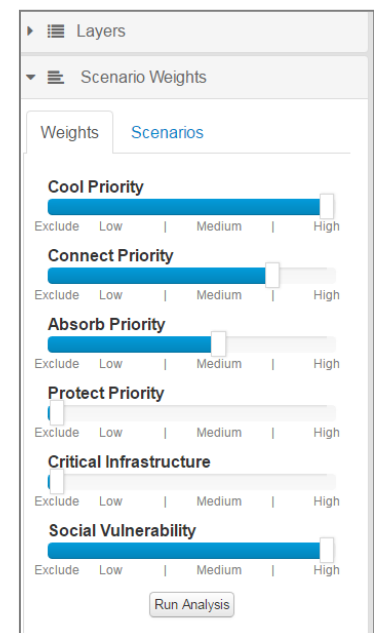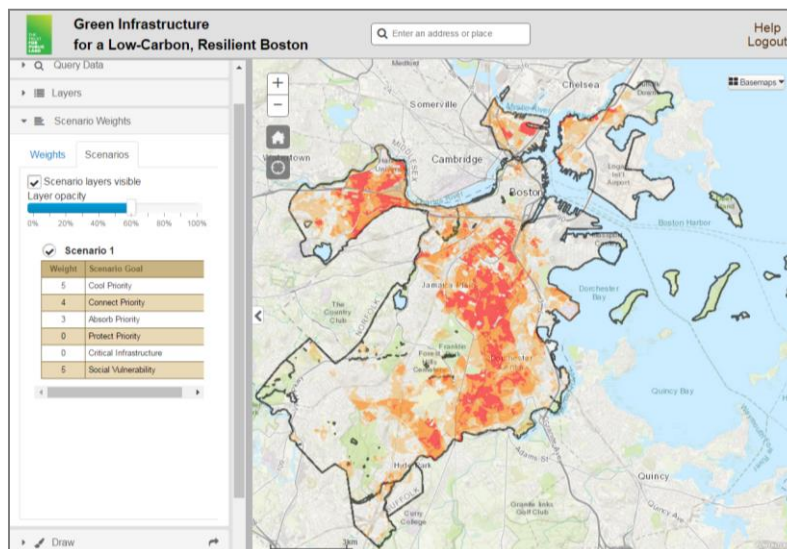

- You can run multiple scenarios by completely the above steps again. After running multiple scenarios, you will find multiple results in **Scenarios** window.

- Turn the results on and off by clicking the large circle next to the scenario title.

- Results of a scenario look that same as any of the analysis results in the layers function.

- Turn the results on and off by clicking the large circle next to the scenario title.

Query

The query function allows users to search for parcels that match the characteristics required by a specific project, interest, or proposal. All modeled climate criteria and important physical characteristics of a site are tagged to parcels and available for export. Users can either query by value (information tagged to the parcel) or by location.

Query by Value

- Select the field you would like to query on from the "Select A Field" menu.

- Select the Logical Operator and query value and press "Add Condition". The condition will appear. You can remove it at any point by clicking ✖.

- After you have added all the desired queries click Run Query .

- A table will open at the bottom of the viewer showing you the parcels that fit your query.

- *Note:* You can clear a query at any point by clicking the Clear Query tab.

- You can either export this data as an excel/csv or create a pdf report for the queried parcels.
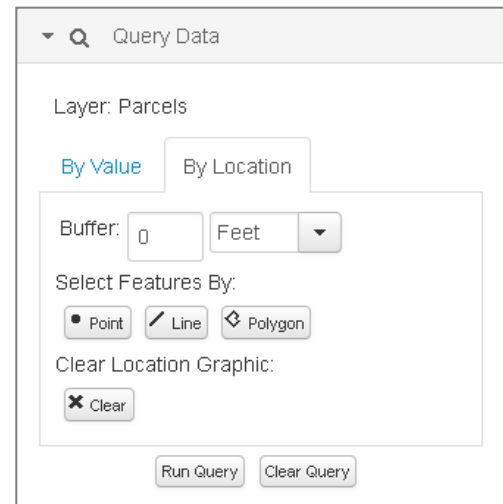
- To further refine a query, you can add another condition. Perform the same steps as above for any additional conditions you would like to include. ***Note:*** Make sure and click "Add Condition" after you have set up your condition. Once this is done a second condition with appear in your query conditions.

- Follow the same directions as above to run the query.

Query by Location

- You can choose point, line, or polygon options to select features and define the buffer of that geometry. Once you have chosen both the buffer and the geometry, you will draw on the map defining the point, line, or area that you would like to query.

- Select Run Query

- *From here, this tool functions the same as Query by Value.* A table will open at the bottom of the viewer showing you the parcels that fit your query. You can either export this data as an excel/csv or create a pdf report for the queried parcels.
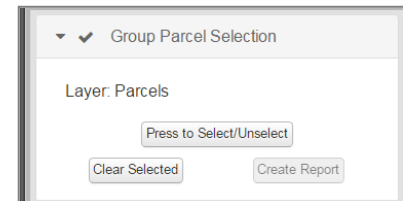
Group Parcel Selection

Sometimes users have a number of parcels of which they are interested in. This tool allows users to select multiple parcels at a time for.

- To select parcels, click the "Press to Select/Unselect" button. Begin clicking on parcels to select them. You can either select an individual parcel or a group of parcels. If you wish to unselect a parcel click it again and the parcel will be removed from the selection.

- You can clear the selected parcels at any point by clicking the "Clear Selected" button.

- You can create a report on any selection of parcels by clicking "Create Report".

- A download window will open. Click "Download File" to obtain the report.
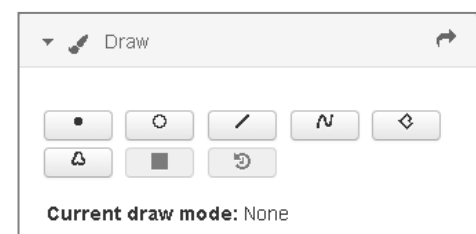
Additional Tools

Draw

The draw tool allows you to add graphics to your map.

- Click the *Draw* tab on the left panel to add graphics to your map.

- To sketch a polygon on your map, click the button.

- Begin sketching a shape on your map by clicking on your map. Double click to finish the sketch.

- You can also add points, lines, circles, and freehand polygons to the map by using the other draw buttons.

- If you want to change the graphics, use the button, and recreate the graphics using the methods described above. **Note:** This action will erase all your drawings.

- To stop drawing click the button.

Google Street View

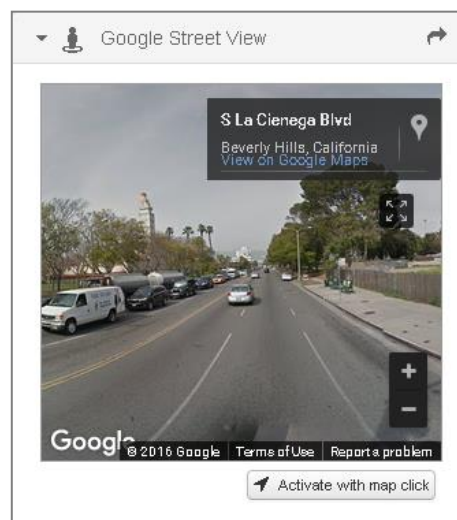Users can see the street view image for anywhere on the map in two clicks.

- Open the *Google Street View* tab.

- Zoom into an area on the map that you would like to see in Google Street View.

- Click [Activate with map click] to see the location you chose on the map.

- You can choose other locations to see in Google Street View by clicking on another location on the map.

Print (a custom map)

Users can print custom maps with a legend and title of your choosing that includes analysis results, selected parcels, and/or and any overlay layers that match your interests or goals.

- To print a custom map that reflects the data and zoom level that you have chosen above, click the *Print* tab on the left panel.

- Enter a title for your map in the space provided.

- Choose the format and layout you would like.

- Click [Settings ▼] to make other adjustments to your printed map.

- Click the [Print] button once you have completed the above steps.

- Be patient while the mapping site generates a map for you. This process can take up to a minute.

- In the PRINT tab a file will appear once the export is complete. Click on the link to open your map.

- An 8.5 X 11 formatted map will be displayed that you can print or save to your computer hard drive to share with others.

- Close the export window to return to the original map.

- Return to original map.
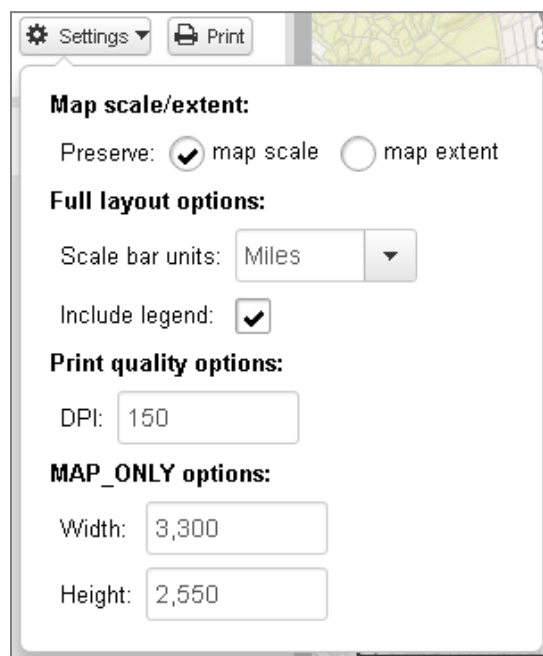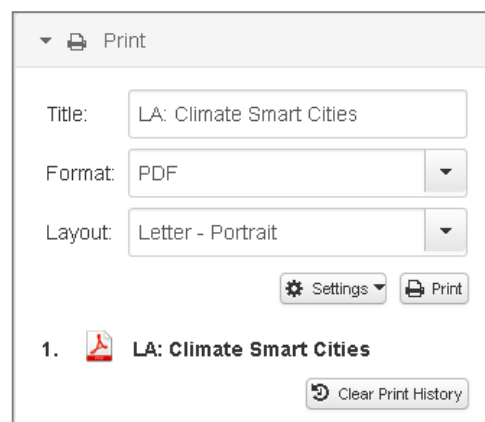
Bookmarks

You can save bookmarks to select and easily reference a location on the map.

- Open the *Bookmark* tab to add an easily reference location. Bookmarks provide shortcuts to select locations on your map.

- To add a bookmark zoom to the desired extent and click Add Bookmark . Enter a title for the location. At any point you can open the Bookmark tab and revisit your bookmarks.

Get Help

- You can always click the Help button at the top right corner of your map for a copy of this user guide and tutorial.

- Still need help? Send an email to gis.support@tpl.org

## Example Decision-making Scenarios

In order to help users get comfortable with the Decision Support Tool, we've put together a few **hypothetical** scenarios users could use the tool to explore.

Neighborhood Context

Example Scenario: The Boston Transportation Department wants to do a Complete Streets Project that supports GoBoston 2030 and provides multiple benefits to mitigate heat and potentially also manage some stormwater through green infrastructure. How could you use the tool to get a better understanding of potential neighborhoods to focus on?

Tool Functions:

- Data exploration

- Transparency

- Drawing

- Print Tool
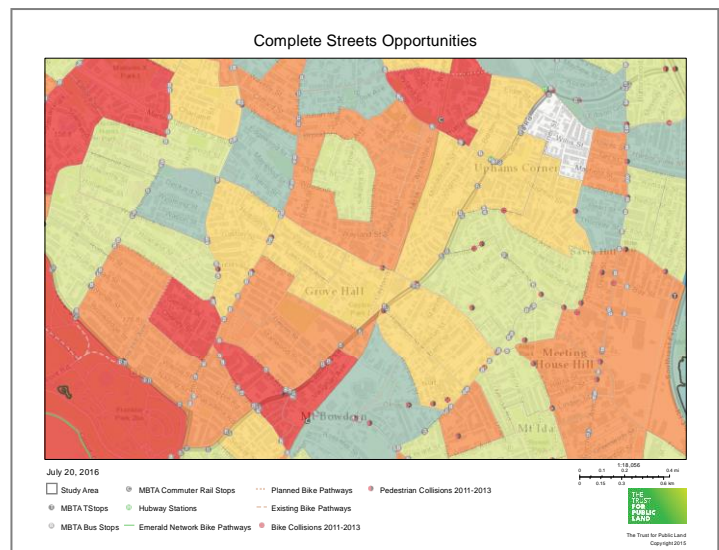
Site Analysis

Example Scenario: Planning & Development and the Environment Department have put out an RFP for Green Infrastructure Projects that benefit to critical infrastructure in areas with a high risk of coastal flooding. One of the submittals is proposing to work on an address you know well. <u>Use the tool to learn more about the characteristics of the site and see if it meets the requirements the city has requested.</u>

Tool Functions:

- Address search

- Select parcel

- Group parcel selection tool

- Parcel profile reports
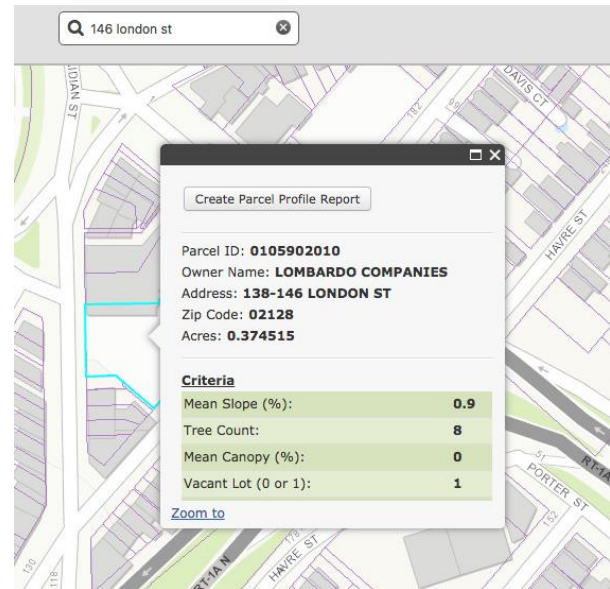
Site Selection

Example Scenario: Boston Water and Sewer w ants to target areas of high stormwater runoff to do a relatively large green infrastructure project. But they also know that BPHC is really interested heat islands and the impacts they have on low-income communities. Finally, Parks & Rec has indicated that they are interested in supporting the development of GI parks that provide new park access to those in the city that might not already have it.

Tool Functions:

- Query tool

- Parcel Table review and table export

- Parcel profile reports