City of Issaquah GIS Viewers – Draw and Measure Tools

version 3.x

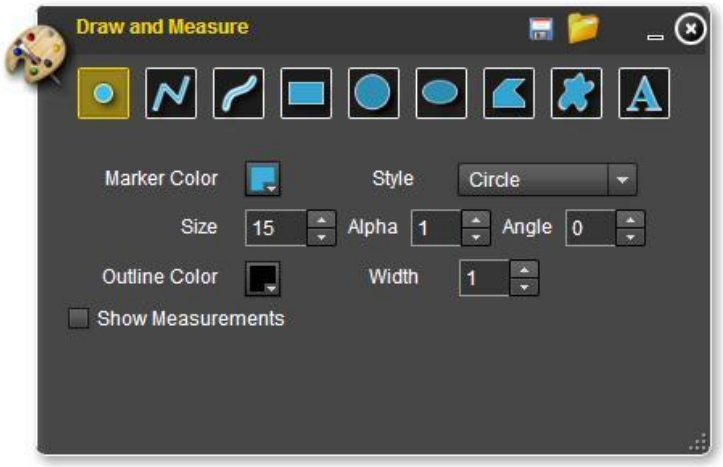
The Draw and Measure tool allows the user to do basic "markups"—or redlining—on the map, and get quick measurements. The tool allows you to save these graphical markups in a file that can be shared with others and reloaded into the tool.

These graphics are not a substitute for proper data maintenance of the underlying geographic data!

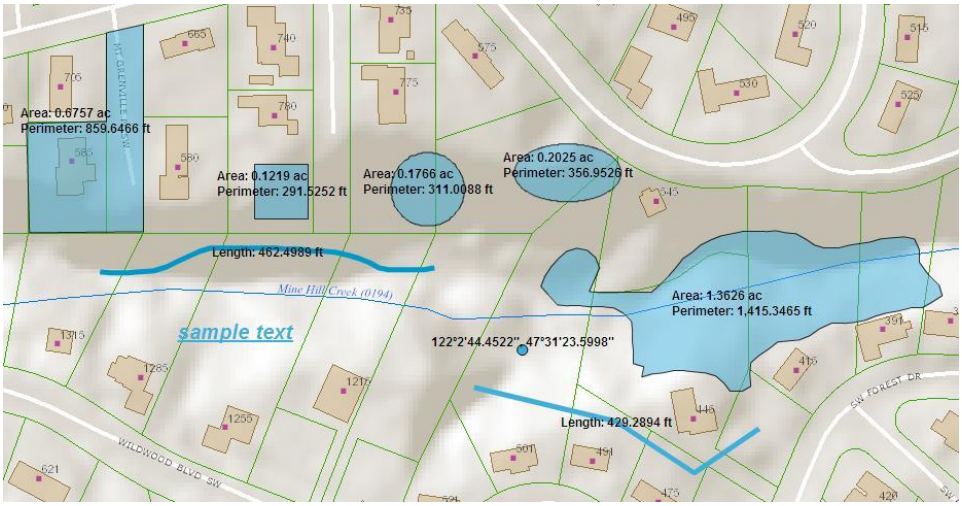
Locating the Draw and Measure tool

The Draw and Measure tool is located directly on the toolbar:

When you load the Draw and Measure tool, you are presented with an interface that allows you to draw points, lines, polygons, and text as graphics on the map. The point graphic tool is the default.

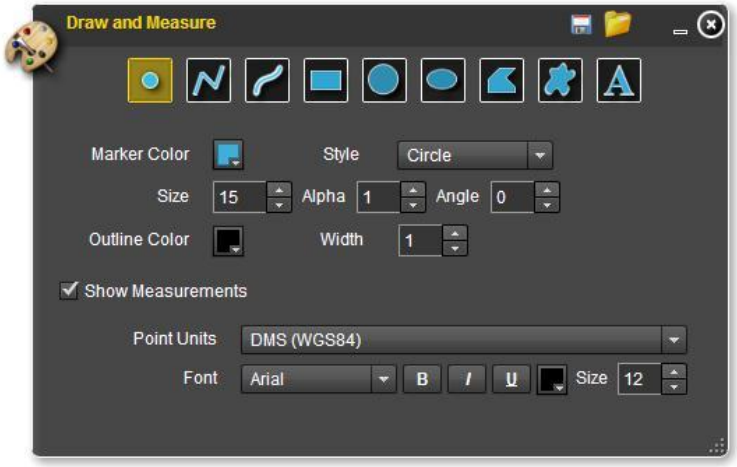


The graphical elements you can create are (in order of the icons shown in the tool): point, line, freehand line, rectangle, circle, ellipse, polygon, freehand polygon, and text. The following graphic illustrates each of these elements.



The graphics persist until you clear them from within the tool or end your viewer session by closing your browser or navigating to another website.

The user also has the option to turn on measurements reporting so that once a graphic shape is drawn, the appropriate measurements are presented. The graphic above shows the measurements reported for each of the graphics. For point features, a coordinate is presented. Line features report a total length. Polygon features report both area and perimeter length. *Note—measurements are only reported if you turn the feature on before drawing the graphic! This is a limitation of the browser environment.*

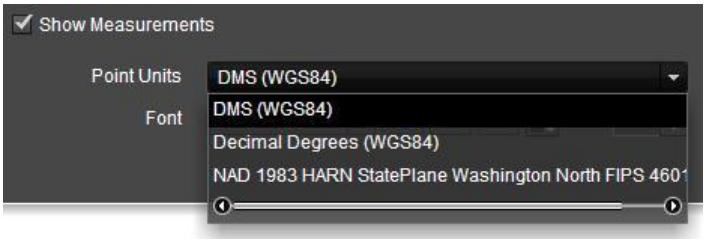


After creating these graphics, the user can also do some basic modifications to their shape and move the shape around on the map.

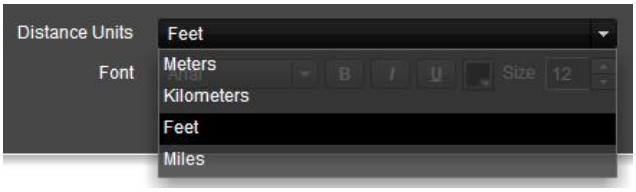
Measurements

After checking the 'Show Measurements' checkbox, the user is able to select a few options regarding the format of the results. These options differ based upon what type of graphic is selected.

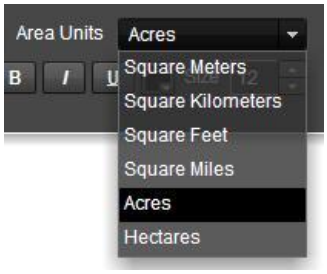
For points, one can choose to report the coordinates in degrees-minutes-seconds (DMS), decimal degrees, or Washington State Plane:



For lines, one can select the distance unit:



For polygons, one can select both the distance unit (the same as for lines) and the area unit:



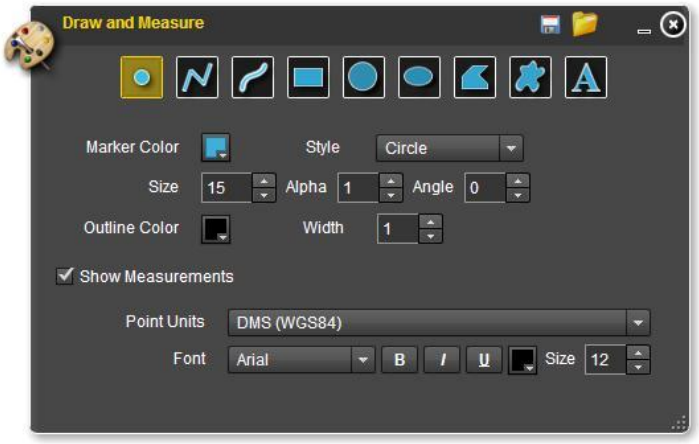
Important note about drawing graphics

The system draws these graphics on a separate layer—the graphical layer—sitting on top of all of the other map data. Depending on the graphical element, the user can set various options. ***It is important to note that you cannot change these options once the graphic is drawn.*** You must set these options ***before*** drawing the graphic. This is a limitation of the browser environment.

This limitation also applies to the measurements. The user must turn on the option for measurements, as well as setting the units of measure and the font characteristics, before drawing the graphic.

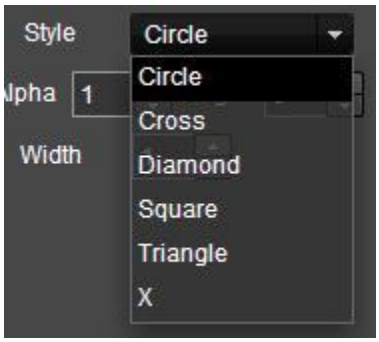
Point Graphics

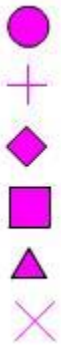
As mentioned previously, the point (or marker) graphic is the default when loading the widget the first time. The following graphic illustrates the options for creating point graphics:



The user can change the color, size, style, transparency (alpha), angle, outline color, and outline width of the point that will be drawn.

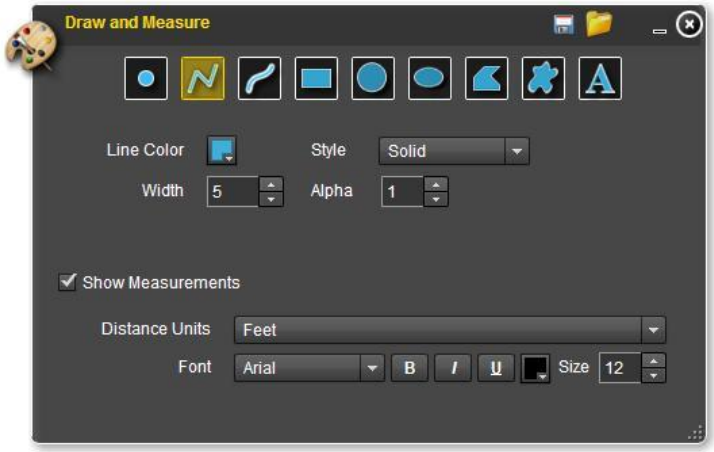
Point styles are:





Line Graphics

The following graphic illustrates the options for creating line graphics:

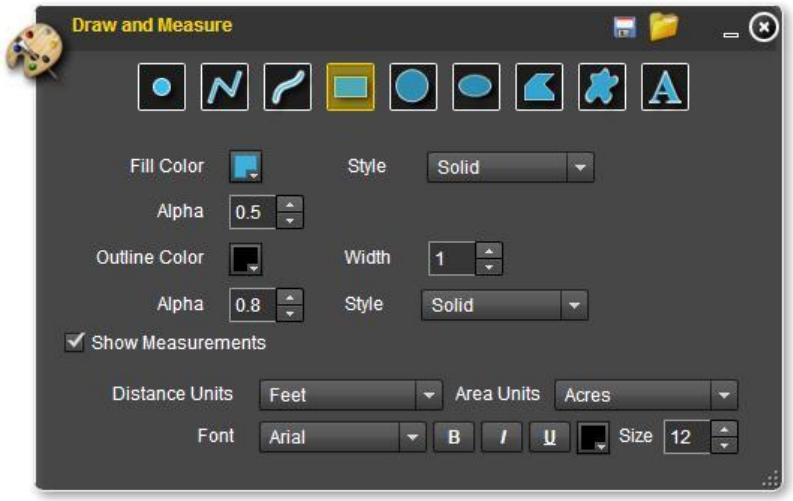


The user can change the color, width, style, and transparency (alpha) of the line that will be drawn.

Line styles are:

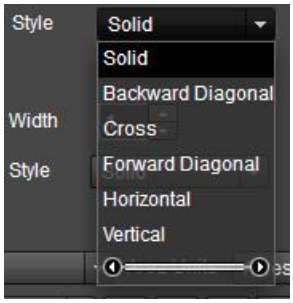
Polygon Graphics

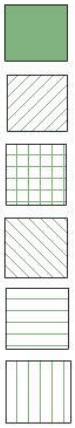
The following graphic illustrates the options for creating polygon graphics:



The user can change the fill color, style, transparency (alpha), outline color, outline width, outline transparency (alpha), and outline style of the point that will be drawn.

Polygon fill styles are:

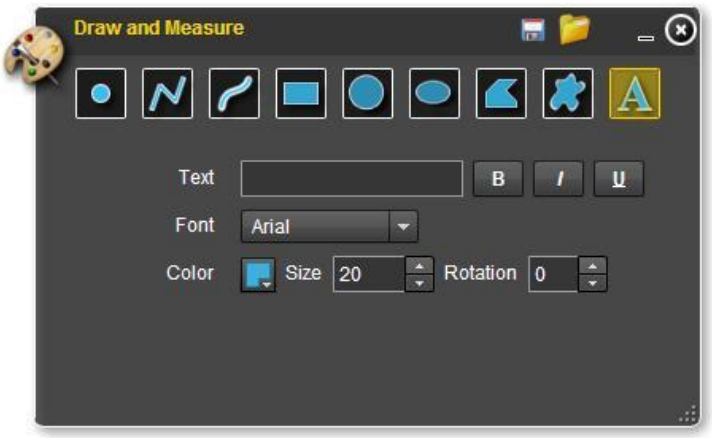




Polygon outline styles are the same as the styles for line graphics.

Text

The following graphic illustrates the options for creating text:

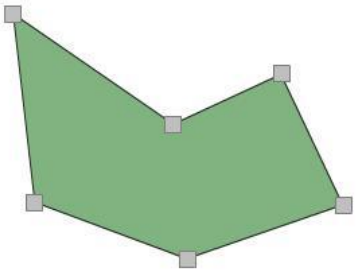


The user enters the text to be drawn, and can select the font, color, size, rotation, and various emphases.

Modifying and moving the graphics

After the graphic is drawn, the user has the ability to modify and move it, to a limited extent. Polygon graphics are the easiest to modify and move. Selecting and manipulating the graphics can be a finicky process, so it helps if you practice to get accustomed to how the process works before you actually need to move or modify a graphic in a real situation.

Lines and polygons show vertex handles when selected (polygon edit shown):



The user can add vertices, delete vertices (by right clicking on the vertex), modify the shape by dragging a vertex to a new location, or move the entire graphic to a new location. If measurement reporting was turned on, modifications to the graphic will update the measurements.

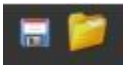
The user can also delete a graphic (without clearing all of the graphics) by selecting, then right-clicking the graphic and choosing ‘Clear’ from the context menu.

User tip: It is sometimes helpful to click on the graphic to select it, then move the mouse off of the graphic and return to it in order for the "four-way-arrow" mouse pointer to show. This mouse pointer indicates that you will be moving the graphic. Line graphics are the most difficult to move. The mouse clicks tend to be interpreted as "insert a vertex". Practice helps but the process can still be finicky.

Saving and loading graphics

As was mentioned previously, these graphics persist only while you are in your current viewer session. If you want to preserve them, you must save them to a file. Once they are in a file, you can reload them, or even send them to a co-worker for them to load into their viewer session. While it is sometimes easiest to simply generate a pdf that includes your graphics, providing a saved file of graphics can enable a user (you or a co-worker) to utilize those graphics within the Search tool for additional processing or simply allow a user to subsequently turn on additional data for visual analysis.

You save and load the graphics using the icons at the top of the Draw and Measure tool:



When you click on the save icon, your graphics will disappear. Do not panic! Simply save the file to a location you can find later. If you want to continue to work with the graphics, load them back into the viewer once the file is saved.

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