I can be reached at delder@valleycog.org, or 203-735-8688 with any questions.

ArcGIS and Municipal GIS Functions

ArcGIS is a copyrighted power analytic tool available to Municipalities for a fee. Environmental Systems Research Institute (ESRI) is the premier leader in GIS, and a basic license that can perform most functions that a municipality may need is available for approximately $3,000.00

Additionally, to make the GIS even more functional, a municipality can have their assessor maps, or property parcels digitized to create a layer that can be overlayed onto a wealth of other datasets. For cost purposes, competitive proposals to digitize parcels typically start at $3.00 a parcel.

In the following example, I am going to show some of the most common uses in Local Planning that we use GIS for. We will cover how GIS can help with field work without ever leaving the office, analyses that create buffers, or regulated areas, and simple suitability analyses. In the conclusion, I will discuss the different standards of data and the impacts of that quality on the decision that can be made from a municipal GIS.
Below you will see the digitized parcel layer for a portion of the Lower Naugatuck Valley region. I have set the features shown in the left hand column, also known as the Table of Contents, to Draw at Different Scales. We will see more and less detail as we zoom in and out.

I am going to give a brief presentation on what can be done with a municipal GIS and then give you an example and a detailed set of instructions for how you can use some of the free GIS resources on your own.

Many of the datasets, or layers, that we use are free and are provided to us by the Connecticut DEP, UCONN’s mapping department, the USGS, and a wealth of other sources. All of the data sets that will be used in this example are from the CT DEP except the municipal parcel layers.
In addition to the data sets provided by the state, the aerial photographs that are available from many sources also provide a lot of information. Building footprints can be determined, water courses, and changes in the landscape can be seen year to year through aerial photographs.
- 50' Foot setback required from the rear
- 25' from the side
- Coverage Calculations
- Identify
- 100 Foot regulated Area
- Suitability Analysis

A Business owner is interested in expanding their manufacturing plant and is shopping around for available land that meets a specific set of criteria.

- They need at least 2 Acres
- The Zone must allow Manufacturing
- They will be using a significant amount of chemicals and do not want to be near a watercourse.

Knowing that Shelton is currently offering tax incentives to commercial businesses, the owner comes to the Land Use Department to try and get some quick answers on any potential sites. And luckily, the City of Shelton has a municipal GIS.
Using a query, we can add criteria to our selection and have results returned that meet our criteria. In this case we are going select all parcels over 2 acres in zones that allow manufacturing, which in Shelton is IA-2.
The results return 49 parcels that meet these criteria. The parcels meeting these criteria are shown in bright blue. However, we still need to reduce those results to avoid close proximity to water. To do that, we can use another query. This one we will select, or deselect in this case, parcels based on their location.
The Results are reduced to 15 parcels. A significant amount of property selection is accomplished in a matter of minutes.

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