Anne Arundel WPRP Watershed Mapping Application
Quick Help Guide

Accessing the GIS Mapping Application: should be compatible with all browsers

Step 1:   In your internet browser, navigate to www.aacounty.org, in upper right corner, click on County Maps, then choose Interactive Mapping Applications

If you are having trouble: a) Disable pop—up blocker b) Set Internet Options to check for newer version of stored pages "Every time I visit the webpage" c) Clear Your Browser's Cache. For instructions on how to clear your cache visit: http://www.wikihow.com/Clear-Your-Browser's-Cache/

Step 2:   Read GIS Data Disclaimer

Step 3:   Find "WPRP Watershed Application" from menu of mapping applications, and click on hyperlink to launch. Or go directly: http://gis-world2.aacounty.org/HTML5Viewer/index.html?viewer=WPRP

Basic Info on map layout: North is up.

Best starting point: "I want to:" to Find an address, Landmark, Intersection, CIP project number, Subwatershed, Parcel Tax Account number, or to click/tap or drag a rectangle to identify features.

Home tab

Full Extent Select this to zoom to FULL COUNTY view.

Previous Extent Select this tool if you want to go to the last map view displayed—use like a back button

Zoom In and Out   use the + or - , or your mouse wheel to zoom in and out

Identify   Select this tool to view information that is in data tables affiliated with map layers. Click to expand this option. Click to show Identifiable layers or to Enable Buffering. Map Layers are listed in the left panel.   Select layer to identify from. Click Identify, move cursor to location on map frame where you wish information from, hover over identified feature in table of contents until box turns blue and click to view results**.**

Print Map: Make a printable map (pdf, tiff, jpg, png). Add a title and notes. Once new file is created, either right click to Save as .jpeg, or hover over bottom of created pdf for option to save……..

Export Map: (png, bmp, jpg, tiff, or geoTiff)

Share: post directly to social media
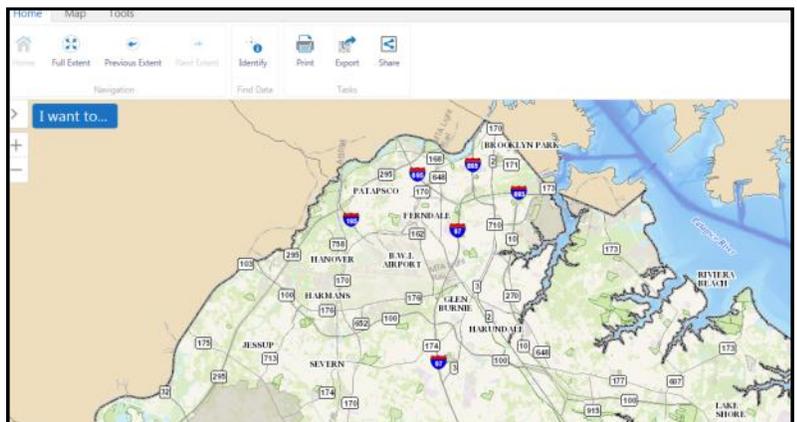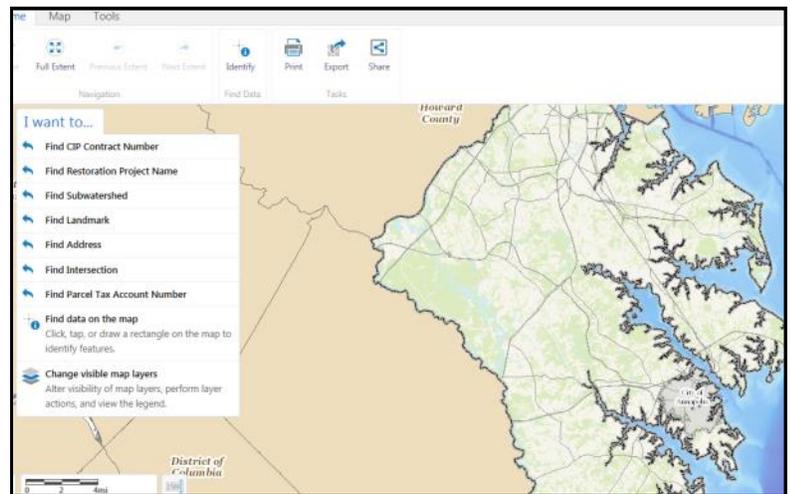
Map Tab

Layer List: Check boxes to display layer on the map.

Filter: allows querying of layers to find features with specific parameters

Upload Data: **Supported file types include** *.csv, .xlsx, .kml, .shp, .gpx, or a .zip containing a FileGDB or shapefiles to temporarily add data to map.* This will add only to your current project and will not be accessed by other people logging into the Mapping Application.

Linked Maps: Access Bing or Google Street view for Bird's Eye View at referenced location. Split screen view or option to open in new window.

Layer tips:

Some layers have "groups".   To view or collapse the group, click the +.

Some layers have sub layers. Must check main box and sub layers for sub layers to appear. No information will be displayed about a layer unless sub layers are checked.

Some layers will not display unless you are zoomed in closely.   If a layer does not display (is light gray), try zooming in.

Click arrow on right for additional actions for layers such as zoom options.

Tools tab

Find Data: allows query of data by identifying features within a specific drawn shape. Set identifiable data, draw shape and identify within the shape. Allows query, buffering and snapping which are more advanced tools.

Measure: measure length or area. Click or tap to draw a measurement line. Double-click/ tap to finish. Results in map image. Can change units of measure.

Draw: use these tools to draw graphics onto map. Example: restoration plans on a site. Or use to write text on map image**.**
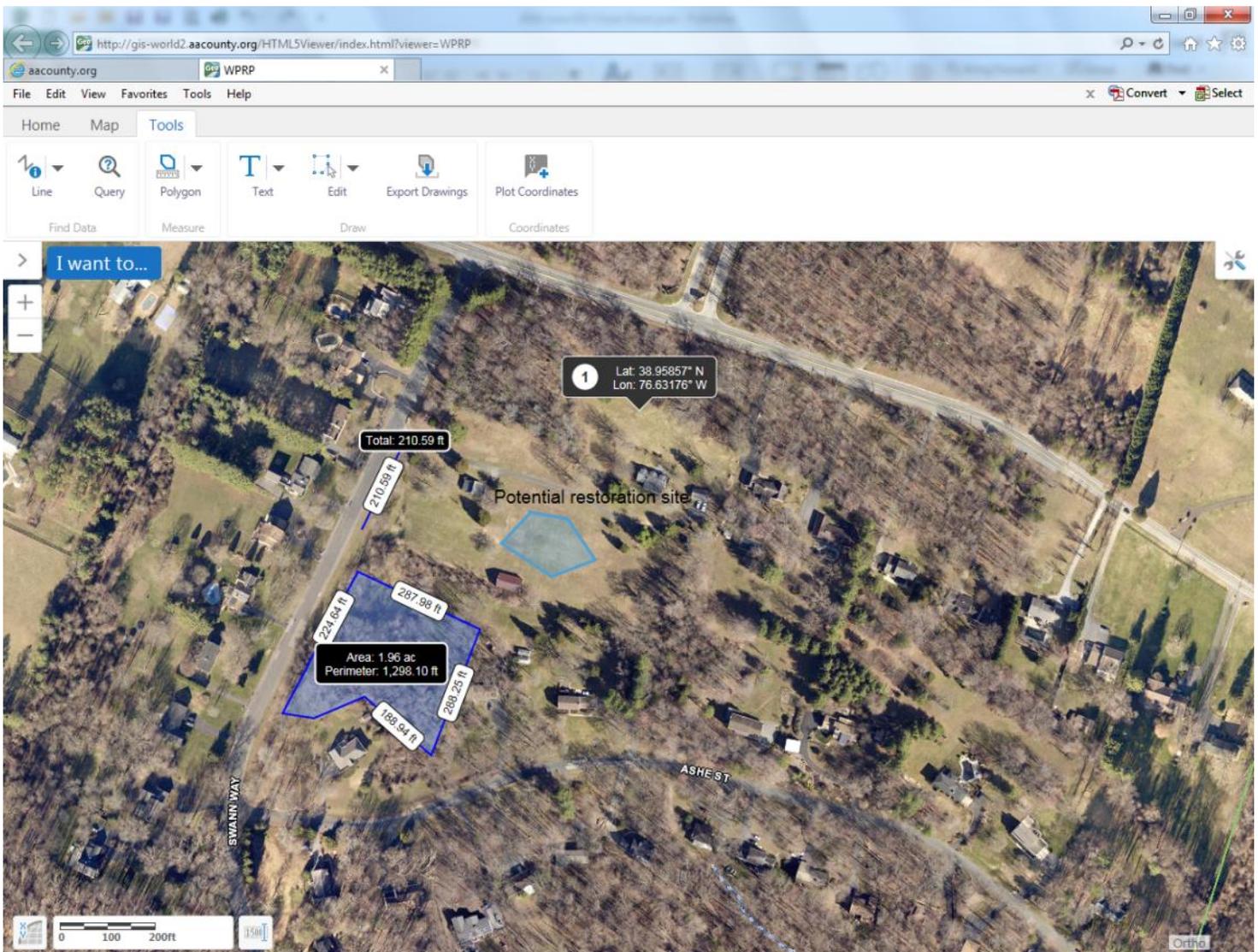
Tips for good map making:

Include scale, legend, north arrow,

WPRP Watershed Mapping Application Map Layer Key

Master Stewards: Certified Stewards are marked with circles based on various steward classes. Name, watershed and e-mail address are available in attribute table. *Use "Identify" to get information.

Parcels: Green outline shows the *approximate* parcel boundary. Use "Identify" to get the tax account number. A link is available to the MD Department of Assessments and Taxation site, which gives detailed information about the parcel including ownership, dimensions, sales price, etc.   Size of parcel is here. Listed under property land area.

Structure Address: Address of building

Drainlines: Shows the flowpath of water within a 5 acre area. Expand this layer and choose the appropriate watershed.

Stream Assessment and Modeling: Anne Arundel County WPRP has had most of the non tidal streams assessed for environmental deficiencies. You must be zoomed in close to reveal this information. Note that you MUST check the Stream Assessment box AND the sub layer below for any information to display.   Not all areas in the county have been assessed. If there is no information displayed, it may mean that this area has not yet been assessed. These deficiencies are:

Biological/Benthic Sampling

Deficient buffer Impact Score: 1 = least severe, 10 = most severe

Dump sites Impact Score: 1 = least severe, 10 = most severe

Erosion Impact Score: 1 = least severe, 10 = most severe

Headcuts: height given in feet

Crossings: Vulnerability to flooding 10 = most vulnerable in 1 yr storm event.

Obstruction Impact Score: 1 = least severe, 10 = most severe

Contributory percent impervious to stream reach: How much of the watershed of a stream reach is impervious surface. Green is least, red is most. Percentages are given in key.

Stream Priority for Restoration: Condition of stream; green is best, red is worst.

Stream Reaches: section of the stream, includes attribute with name of stream

Rosgen Level 1 Classification: The shape of the stream including slope, channel shape and pattern.

Pipe Inventory

Ditch

Utility

WPRP Watershed Mapping Application Map Layer Key

Septic Systems: This layer indicates a septic system on the property, but not WHERE the septic tank or drain field is.   Information on location of septic or wll can be found at the AA County Dept of Health.

Terrain Data: Topography lines and elevations

Utilities: This layer shows the location of outfalls, stormwater manholes, stormwater inlets, stormwater drain pipes, culverts, sewer lines, water lines. It is NOT accurate enough for digging and does not show the location of electric, cable or other utilities.

Urban Features: You must be zoomed in closely to see these layers. You can check the following layers: Points of Interest (schools, churches, etc.), fences, impervious surface existing in 2011. Using the Identify tool, you can determine the area of each impervious surface on a property.

Environmental Restoration Projects: Voluntary projects entered into the restoration activity data form and Capitol Improvement Projects are displayed here.   You can also display the project drainage area.

Natural Resources: FEMA Floodplain, Critical Areas (1000 feet from a waterway), greenways, bog wetlands, wetlands, FEMA floodplain.

Soils: Hydrological soil group based on USGS soil survey; information regarding infiltration rates and other soil properties.

Landcover 2014: Land cover classification (residential zoning, pasture, woods, utility, etc.)

Impairments and TMDLs: Number and type of watershed impairments and information about EPA approved Total Maximum Daily Loads (TMDL). Will indicate final or draft TMDL.

Watersheds: 12 major watersheds in AA County

Watershed Implementation Plan Sectors: Divides county into geographic chunks for WIP planning. Funding source for WIP implementation is noted on map.

Sub watersheds: Subwatersheds are the stream drainage areas. Watersheds broken into 354 subwatersheds.

Sub watersheds Priority for Preservation: Highest priority = Red, Lowest priority = Green

Sub watersheds Priority for Restoration: Highest priority = Red, Lowest priority = Green

WIP Priority for Restoration

My AA: County Council Districts , can adjust transparency.

ESRI Basemap: A line drawing of roads, buildings, streams and other basic features . Can adjust transparency.

Ortho2016: Aerial photography . Can adjust transparency.

Calculating Percent Impervious Surface of a Parcel

Step 1: Turn on Parcel Layer. Identify Parcel Layer. When the address is listed in the results table, hover over until it is blue, then click to open the tax account table. Click on the Property Information Hyperlink. Which will open a new window tih the tax record from Department of Assessments and Taxation.
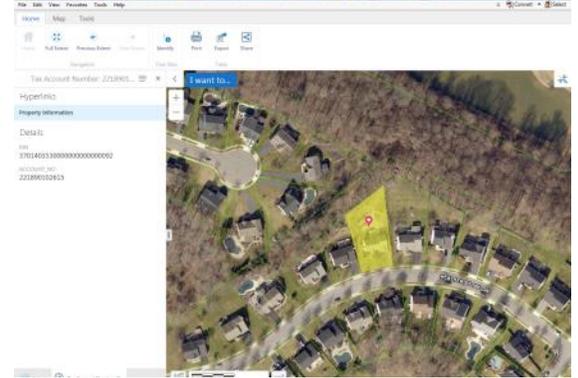
Step 2: From the Department of Assessment and Taxation website, note the size of the parcel listed under Property Land Area might be in acres and needs conversion from acres to square feet.

Step 3: Go to Urban Features Layer, turn on Impervious Surface Sublayer.

Add up Impervious Surface of Parcel. Identify each impervious surface, add to selected, use table view then add them together. Can click identify, and alternatively draw box around all at once, to collectively identify everything in box. Add up total from table. You can export to csv to help do math operations

Total impervious: 8352 ft^2

Step 4: 8352 ft^2 **divided by 14404** ft^2 **= .58**

(57 % impervious)

Total Impervious Surface divided by Total Parcel Size x 100 = Percent Impervious Surface of entire parcel