Honolulu's Urban Tree Canopy Assessment[1]

Online Mapping Tool[2]

Virtual Tour

Link to Mapping Tool

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[1]University of Vermont Spatial Analysis Lab in cooperation with the USDA Forest Service Northeastern Research Station and the Friends of Hawaii's Urban Forest. Completed May, 2012.
This land cover dataset is considered current as of 2010.
[2]Online Mapping Tool provided by Honolulu Land Information System (HoLIS), City and County of Honolulu.

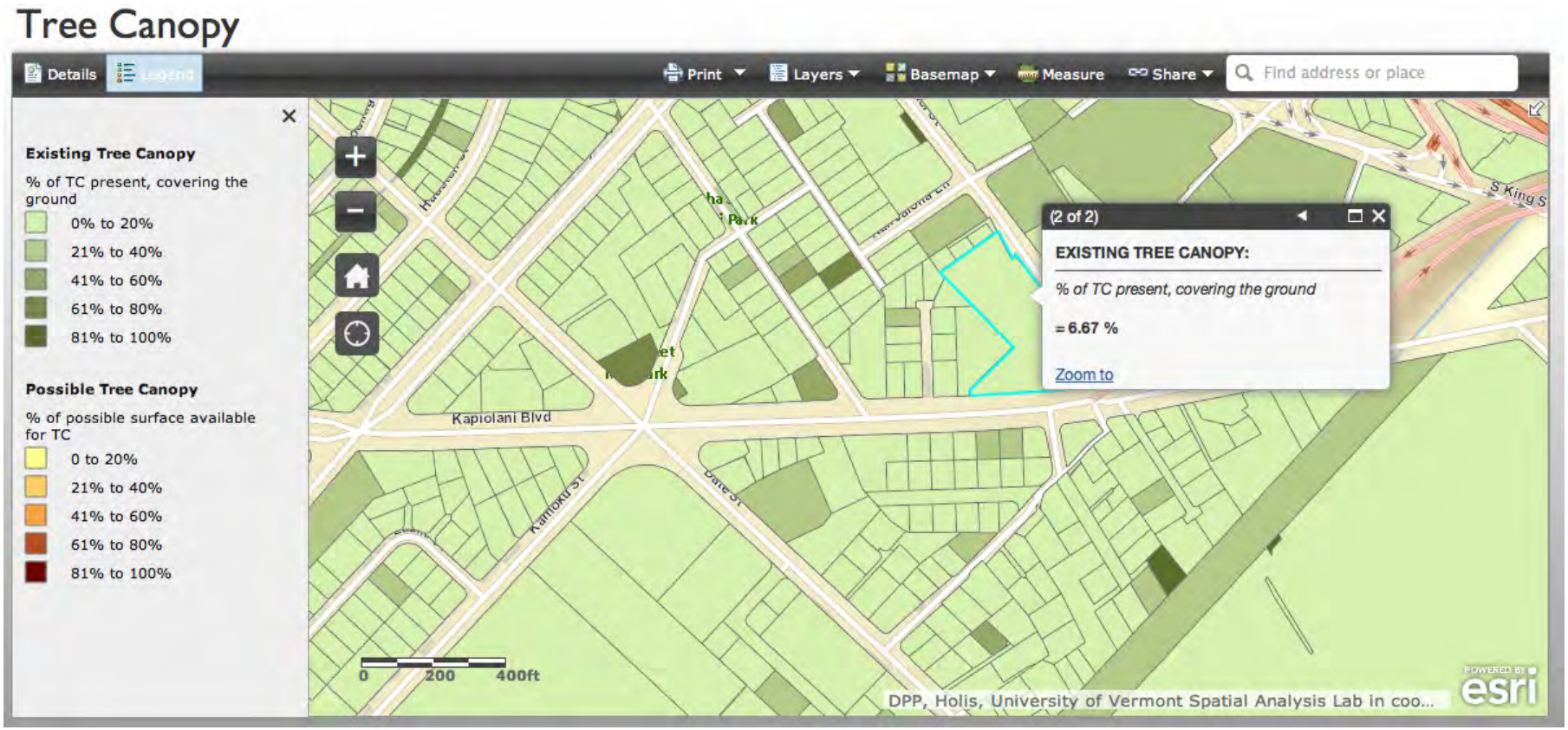
Aerial Image of Site

Begin by searching for your site (address, placename, school, business, etc.) in the search window.

Next , select the imagery basemap from the “basemap” dropdown menu.

Finally, uncheck all layers from the “layers” dropdown menu.

Next, we will explore all the layer options one by one.

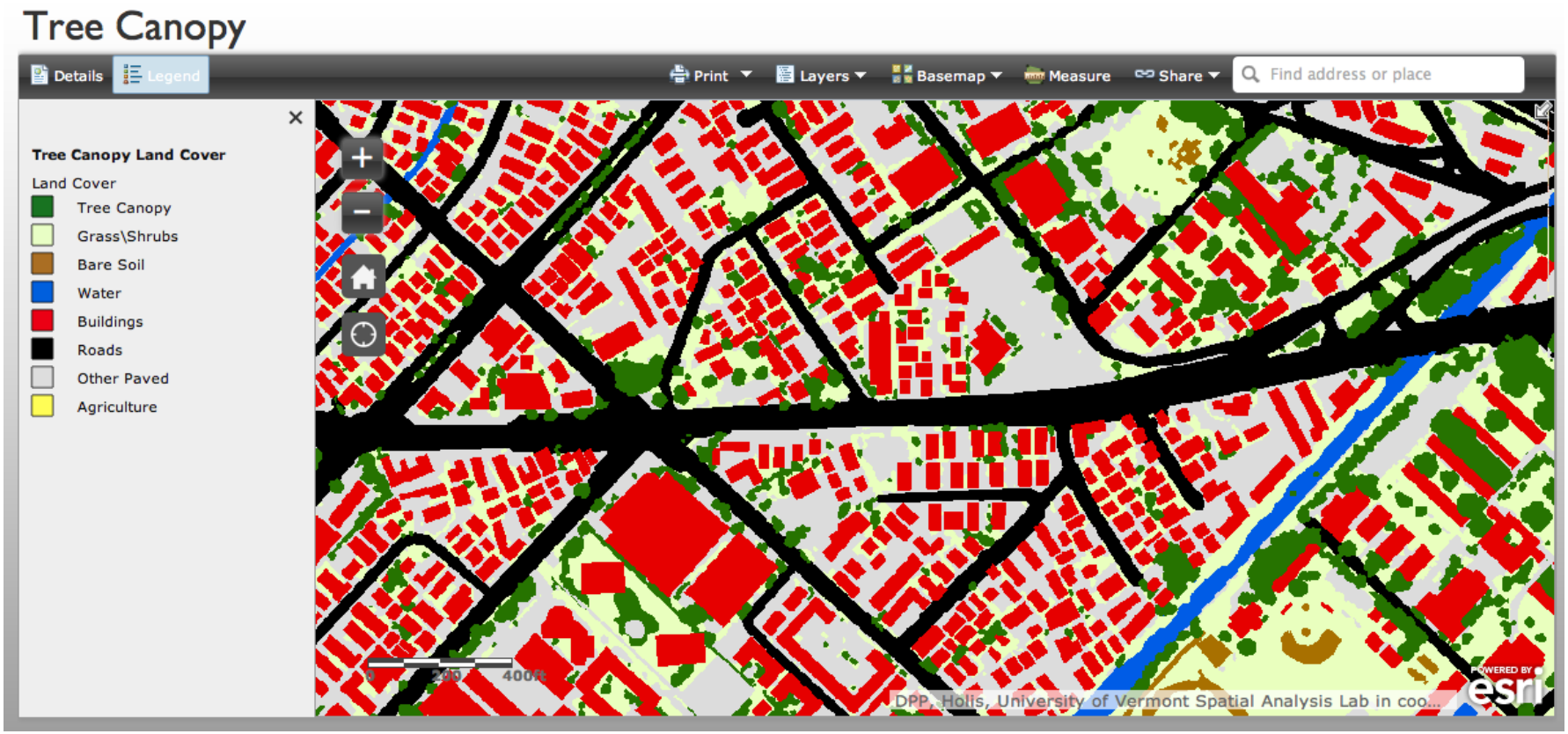


Existing Tree Canopy

We can check our property to determine the current tree canopy cover. In this case, the parcel we selected has a mere 6.67% tree canopy. The “Existing Tree Canopy” layer also helps us get a better understanding of areas that might benefit from expansion of the tree canopy.

Possible Tree Canopy

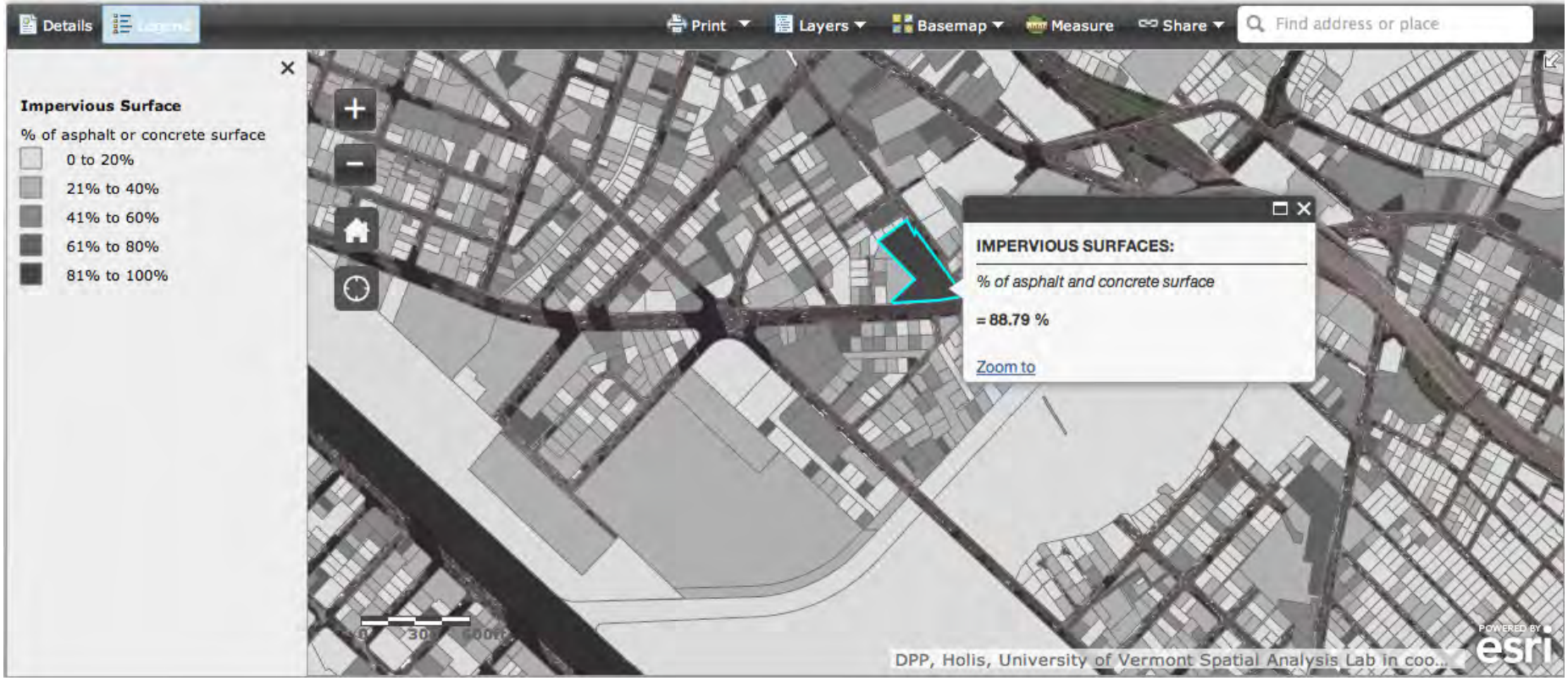
By adding the “Possible Tree Canopy” layer we can identify parcels suitable for expanding the tree canopy. The parcel selected in the example above has 91% of its surface available for tree canopy. The “Land Cover “and “Impervious Cover” layers can give us more information about this parcel as shown on the next slides.



Tree Canopy Land Cover

Let's add the "Tree Canopy Land Cover" Layer to get more information about this parcel. This layer includes surface features such as roads, buildings and bare soil. The Tree Canopy feature actually shows the extent of tree canopy as it overlaps other surface features like pavement and buildings.

Tree Canopy



Impervious Surface

Although the “Possible Tree Canopy” for our parcel is identified as 91%, by adding the “Impervious Cover” layer, we can see that it is 88.79% impervious. This means that in order to increase the tree canopy in this parcel we would need to replace some hardscape with vegetation. On the flip side, adding trees to this parcel will have a very positive impact on watershed quality by reducing the overall imperviousness, allowing water to infiltrate the ground and be treated by roots and soil instead of running off.

All maps were created by using the City and County of Honolulu's Tree Canopy map tool.

For a more robust analysis capability, the UTC layers can be added to the public web maps available from the City and County of Honolulu and combined with other available data layers such as stormwater system or land ownership: