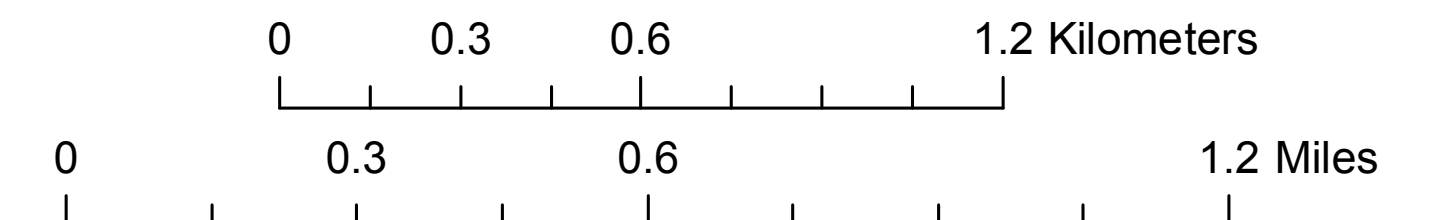
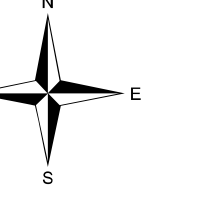




MAP 7; AERIAL PHOTO (2013) GUILFORD, VT

Data Sources; Vermont Biodiversity Project,
Vermont Center for Geographic Information,
Vermont Fish and Wildlife Department,
Microsoft BING Imagery
Vermont State Plane Projection
NAD1983 Datum
Map by Jens Hilke
April, 2013



The aerial photos most readily available are the B&W orthophotos distributed by VCGI (VT Center for Geographic Information). These are on a 1:5000 scale, but because they are orthophotos they are spatially quite accurate and very useful. There are statewide color versions also available through NRCS. Both the B&W and color photos are updated periodically.

The orthorectification process removes the distortion (resulting from topography, lens distortion and camera tilt) from an aerial photograph. The resulting orthophoto has a uniform scale, which makes it particularly useful for measuring distances and areas. Because "on-the-ground" features are directly observable in many cases it makes such measurement use very easy. Additionally, visible features like roads and streams can be "digitized", or turned into vector data layers for use in habitat analyses. For general natural resource planning work they are intuitively easy to use as one can directly observe the land use conditions and make reasonable assumptions about habitat, particularly in their color format. They make excellent base maps for other data layers of information.

These maps have relatively few limitations for use at nearly any scale that would normally be necessary for municipal natural resource planning. This includes useful information from a parcel scale (such as percent open fields or pavement, or location of buildings) up to a multi-town scale looking at habitat resources. They are not normally used for very large scale analysis because they become less convenient to use and their high resolution becomes less relevant, but there are no inherent limitations of such large scale use in the orthophotos themselves. The "sweet spot" that takes best advantage of the information in these photos is normally at a small watershed to neighborhood scale. While useful for resource planning, it is important to keep in mind that even after the orthorectification process there is still some positional error. They should not be used for purposes where positional accuracy is critical. Substituting them in situations where a survey is normally required, such as in land conveyances, is also not appropriate.