

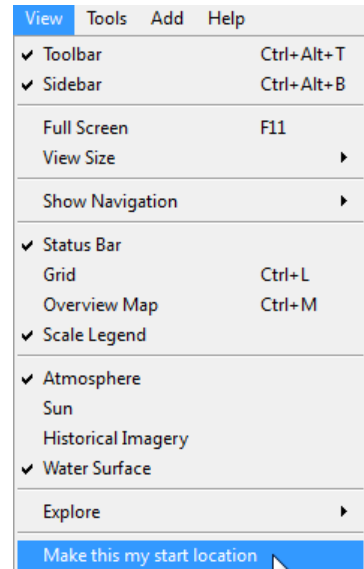
GOOGLE EARTH

One of the most error prone parts of other books on waterfalls is the part containing driving directions. In one book I have, the directions to two different waterfalls make the same turn at the intersection. In one set of directions, the intersection is referred to by its state highway number, and in the other by the name on a street sign. When you actually get there, there is no street sign and there is no state highway number. Good luck with that!

I think I have a better answer. I've used Google Earth to locate each waterfall as well as recommended parking locations. I save these locations as KML / KMZ files which you can download from my web site. If you have Google Earth installed on your computer or laptop, a simple double click on one of these files will automatically open Google Earth and 'fly' to the at location. The good news is that Google Earth is free! There are 'Pro' and 'Enterprise' versions for which a fee is charged, but you do not need them. Free just feels so good!

Download Google Earth from the web site (<http://earth.google.com/>). Once you install Google Earth, the very first thing you should do is expend an enormous amount of time exploring every place you have ever lived or visited anywhere in the world. There is a set of 'sightseeing' places that you can explore, and if you click on the 'Play' button at the lower right of the Locations panel, you will get some idea of the power of this application.

When you first start Google Earth, the 'Toolbar' and 'Sidebar' are visible, but they can be hidden. To follow the steps below, they should be visible. If not, use the 'View' menu to place a check mark in front of them. They are the first two items on the drop down menu.



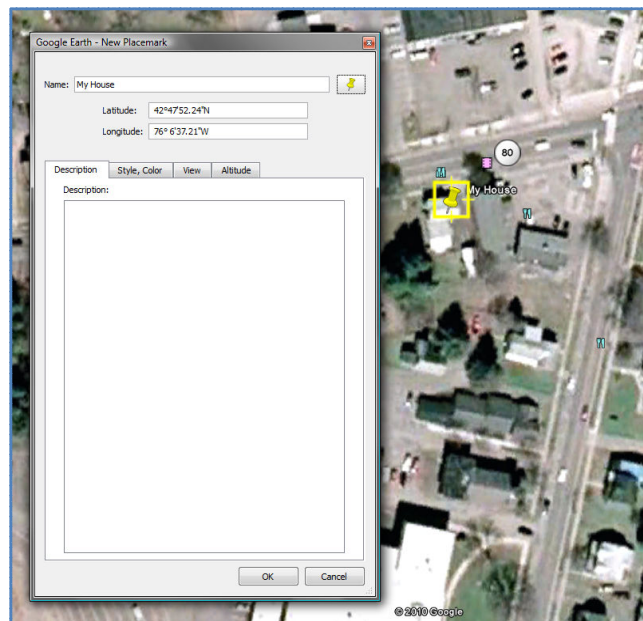
When you are done playing exploring the user interface, find your own home again. You can drag the image with the mouse, and zoom using the scroll wheel. You can also double click on the image; this will both zoom in a bit and re-center the image on the position where you click. So just double click until you can see your roof top up close! Now place a pin there. Just click on the Placemark tool on the toolbar, the yellow push pin button.

The Placemark dialog appears along with a floating pin icon. You know it's floating as it has a square border around it. Use your mouse to drag the pin icon until it sits directly over your home. You may have to move the dialog box.

In the dialog box, enter a name for the location; "My House" seems obvious, but something a bit more personal, like "Bob's House", might be better if you share this location with friends. You can also add a description and change the color of the pin and the text label that appears next to it. Click 'OK' when you finish. Once you have your home located, use the 'Make this my start location' on the View menu so Google Earth goes directly to your home when you launch it next time.

If you entered anything in the description, is displayed in a small popup window when you click on the pin in Google Earth. You should also place a pin at each location you visit or plan to visit; these will help with driving directions when it comes time to plan a trip!

Another cool thing you can do with Google Earth pins is to share your locations and descriptions with other Google Earth users. If you right-click on a pin, and

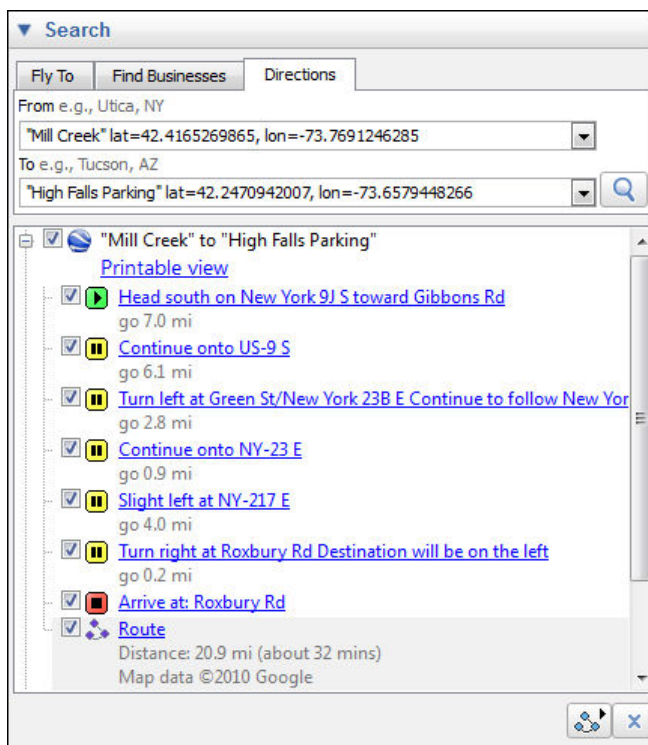
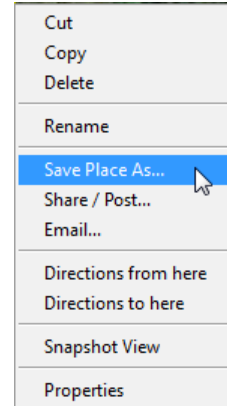


select 'Save place as...' from the context menu, you can save your location to a file which you can e-mail to a friend. The file save dialog lets you select either KML or KMZ format. A KMZ is just a compressed version of the KML, and will be slightly smaller; better for sending as an e-mail attachment. When your friend gets the KML or KMZ file, she only has to double click it to have Google Earth open up and fly to that location. Way cool!

This book has a KML file for each location. There will usually be one for the actual waterfall, and one for the best place to park. There may be others for photographic locations. On the web site, you can download a KML file for each waterfall. Each will have several locations; parking, viewpoints etc. I suggest creating a personal folder where all the KML files can be downloaded.

If you look closely at this pin's context menu, you can use the pins to get driving directions. Simply right-click on your starting location pin and choose 'Directions from here', then on your destination pin, choose 'Directions to here'. Google Earth will highlight your route on the display, and list the route turn-by-turn, with distance, in the sidebar. If you use the 'Play' button at the lower right of that panel,

Google Earth will fly the route. A small media toolbar will appear at the lower left of the map display which you can use to pause, speed up or rewind the flight. You might think about taking your laptop with you instead of printed maps! This is the directions panel for a trip from the Swyer Preserve at Mill Creek, to the High Falls parking area.



MOMENT OF GEEK – KML FILES

Wonder what's in the KML file., or why it's called KML? Well, Google Earth was originally created by a company called, Keyhole, Inc which was later acquired by Google. "Key Hole" was the code name for the first spy reconnaissance satellite to use digital imaging. KML stands for Keyhole Markup Language. You can open it in a simple text editor, such as Notepad. This is the KML file for the "Bash Bish Falls Lower Parking Area". (KMZ is as very similar file, but has to be un-ZIP-ped.)

```
<?xml version="1.0" encoding="UTF-8"?>
<kml xmlns="http://www.opengis.net/kml/2.2" xmlns:gx="http://www.google.com/kml/ext/2.2"
xmlns:kml="http://www.opengis.net/kml/2.2" xmlns:atom="http://www.w3.org/2005/Atom">
<Document>
  <name>Bash Bish Falls Lower Parking Area.kml</name>
  <Style id="sh_ylw-pushpin40">
    <IconStyle>
      <scale>1.3</scale>
      <Icon>
        <href>http://maps.google.com/mapfiles/kml/pushpin/ylw-pushpin.png</href>
      </Icon>
      <hotSpot x="20" y="2" xunits="pixels" yunits="pixels"/>
    </IconStyle>
  </Style>
  <StyleMap id="msn_ylw-pushpin50">
    <Pair>
      <key>normal</key>
      <styleUrl>#sn_ylw-pushpin003</styleUrl>
    </Pair>
    <Pair>
      <key>highlight</key>
      <styleUrl>#sh_ylw-pushpin40</styleUrl>
    </Pair>
  </StyleMap>
  <Style id="sn_ylw-pushpin003">
    <IconStyle>
      <scale>1.1</scale>
      <Icon>
        <href>http://maps.google.com/mapfiles/kml/pushpin/ylw-pushpin.png</href>
      </Icon>
      <hotSpot x="20" y="2" xunits="pixels" yunits="pixels"/>
    </IconStyle>
  </Style>
  <Placemark>
    <name>Bash Bish Falls Lower Parking Area</name>
    <description>The lower parking area is in New York State. The main waterfall is 3/4 mile up the trail. The trail is wide and well kept. In winter, small seeps will deposit sheets of ice across this trail, so care must be taken.</description>
    <LookAt>
      <longitude>-73.50678658347879</longitude>
      <latitude>42.11635391148131</latitude>
      <altitude>0</altitude>
      <range>537.1533830886672</range>
      <tilt>0</tilt>
      <heading>17.37972177690626</heading>
      <altitudeMode>relativeToGround</altitudeMode>
      <gx:altitudeMode>relativeToSeaFloor</gx:altitudeMode>
    </LookAt>
    <styleUrl>#msn_ylw-pushpin50</styleUrl>
    <Point>
      <coordinates>-73.5077180936799,42.11701018137629,0</coordinates>
    </Point>
  </Placemark>
</Document>
</kml>
```

If you are familiar with XML, the structure of an KML file will be recognizable. If you are not, the tags and values are still somewhat readable. KML, XML and HTML are all mark-up 'languages'. Each element consists of tag pairs that control how software interprets the information between the tags. In HTML, for example, the tag pair `<i> ... </i>` tells a web browser that the word(s) between the tags are to be displayed in italics. In KML, many of the tags contain data. From above, the 'coordinates' tag contains longitude, latitude and altitude.

```
<coordinates>-73.5077180936799,42.11701018137629,0</coordinates>
```