

# Hamilton County Soil & Water Conservation District

## Envirothon Study Materials

Below are a number of resources and study materials that may be useful when studying for the Envirothon. Good luck during this year's event!

### *Hamilton County Envirothon*

#### Soils/Land Use

Geology of the Adirondack Park

[http://www.apa.state.ny.us/About\\_park/geology.htm](http://www.apa.state.ny.us/About_park/geology.htm)

A History of the Adirondacks

<http://www.nywea.org/clearwaters/04-1-spring/adkhist.cfm>

Soil Survey of Hamilton County

<http://www.hamiltoncountyswcd.com/ErosionControl/SoilSurvey.pdf>

Soils Glossary

<http://www.soiltectonics.com/soilsglossary.html>

Glossary of Soil Terms

[http://eusoils.jrc.ec.europa.eu/ESDB\\_Archive/glossary/Soil\\_Terms.html](http://eusoils.jrc.ec.europa.eu/ESDB_Archive/glossary/Soil_Terms.html)

Soil Characteristics

<http://soil.gsfc.nasa.gov/links/charac.htm>

Helping People Understand Soils

<http://soils.usda.gov/>

Soil Survey Maps

[http://keck.library.unr.edu/data/soil\\_survey/soilsurvey.htm](http://keck.library.unr.edu/data/soil_survey/soilsurvey.htm)

#### Aquatic Ecology

A History of the Adirondacks

<http://www.nywea.org/clearwaters/04-1-spring/adkhist.cfm>

Natural Communities

[http://www.apa.state.ny.us/About\\_Park/natural\\_commun.htm](http://www.apa.state.ny.us/About_Park/natural_commun.htm)

Acid Rain and the Adirondacks

<http://www.adkmuseum.org/acidrain/forests.shtml>

The State of Hamilton County Lakes A Statistical Analysis of Water Quality Trends Part I Introduction and Methodology Sections  
[http://www.hamiltoncountyswcd.com/WaterMonitoringReports/Ten\\_Year\\_Report\\_FullVersion.pdf](http://www.hamiltoncountyswcd.com/WaterMonitoringReports/Ten_Year_Report_FullVersion.pdf)

A Biological Assessment of Selected Streams in Hamilton County, NY Final Report of the 2003 Monitoring Program  
[http://www.hamiltoncountyswcd.com/WaterQuality/streams\\_2003.pdf](http://www.hamiltoncountyswcd.com/WaterQuality/streams_2003.pdf)

Shoreline Management in the Adirondacks  
<http://www.hamiltoncountyswcd.com/DistrictBrochures/shorelinemanage-all.pdf>

Save That Lake  
<http://www.hamiltoncountyswcd.com/DistrictBrochures/savethatlake.pdf>

Stormwater Runoff  
<http://www.hamiltoncountyswcd.com/DistrictBrochures/Stormwater%20brochure%202009.pdf>

Stormwater Manual  
<http://www.hamiltoncountyswcd.com/DistrictBrochures/Stormwater%20Management%20Guide%20for%20Local%20Officials.pdf>

Invasive Species  
<http://www.hamiltoncountyswcd.com/InvasiveSpecies/HCSWCDInvasivePlants.htm>

Adirondack Park Invasive Plant Program  
<http://www.adkinvasives.com/>

Hydrologic Cycle  
<http://www.und.nodak.edu/instruct/eng/fkarner/pages/cycle.htm>

Water Chemistry  
[http://www.nsf.gov/news/special\\_reports/water/index.jsp](http://www.nsf.gov/news/special_reports/water/index.jsp)

Fish of New York  
<http://pond.dnr.cornell.edu/nyfish/fish.html>

Adirondack Fish  
<http://www.dec.ny.gov/outdoor/31920.html>

Earth's Water  
<http://ga.water.usgs.gov/edu/mearth.html>

Watersheds

<http://www.epa.gov/owow/watershed/whatis.html>

Non Point Source Pollution

<http://www.epa.gov/nps/whatis.html>

Wetlands

<http://www.epa.gov/wetlands/>

Benthic Macroinvertebrate Dichotomus Key

<http://www.iowater.net/PDFs/BMIKey2002.pdf>

## Forestry

Natural Communities

[http://www.apa.state.ny.us/About\\_Park/natural\\_commun.htm](http://www.apa.state.ny.us/About_Park/natural_commun.htm)

Adirondack Forest Communities

<http://www.esf.edu/aec/adks/forestcomm.htm>

Acid Rain and the Adirondacks

<http://www.adkmuseum.org/acidrain/forests.shtml>

Invasive Species

<http://www.hamiltoncountyswcd.com/InvasiveSpecies/HCSWCDInvasivePlants.htm>

Adirondack Park Invasive Plant Program

<http://www.adkinvasives.com/>

Forest Management Practices

<http://www.ces.ncsu.edu/nreos/forest/woodland/won-27b.html>

Calculating Board Feet

[http://www.woodzone.com/tips/board\\_feet/board\\_feet.htm](http://www.woodzone.com/tips/board_feet/board_feet.htm)

Estimate Board Feet with Biltmore Stick

<http://www.ces.ncsu.edu/forestry/pdf/WON/won05.pdf>

Using a Biltmore Stick

[http://extension.usu.edu/forestry/Management/Biltmore\\_UsingABiltmoreStickt.htm](http://extension.usu.edu/forestry/Management/Biltmore_UsingABiltmoreStickt.htm)

Improve Your Land for Timber Production

<http://www.oznet.ksu.edu/library/forst2/1725.pdf>

Angiosperm or Gymnosperm?

<http://www.fw.vt.edu/DENDRO/forsite/idtype.htm>

Plantae

<http://www.discoverlife.org/20/q?search=Plantae>

What is a Tree?

<http://www.oplin.org/tree/>

Forestry Extension

[http://extension.usu.edu/forestry/UtahForests/Trees\\_WhatIsATree.htm](http://extension.usu.edu/forestry/UtahForests/Trees_WhatIsATree.htm)

Leaf Arrangement

<http://cas.psu.edu/docs/CASDEPT/Hort/LeafID/Arrangement.html>

Tree Diseases

<http://www.forestryimages.org/diseases.cfm>

Measuring Tree Trunk Diameter

[http://www.richmondhill.ca/documents/tree\\_bylaw\\_factsheet\\_4.pdf](http://www.richmondhill.ca/documents/tree_bylaw_factsheet_4.pdf)

Glossary of Forestry Terms

<http://www.dnr.state.md.us/forests/gloss.html>

Hardwood Trees

<http://www.bio.brandeis.edu/fieldbio/emmae24/intro.html>

Basic Tree ID

<http://www.fw.vt.edu/dendro/forsite/Idtree.htm>

Tree ID Key

<http://www.uwsp.edu/cnr/LEAF/Adobe/Key.pdf>

## Wildlife

A History of the Adirondacks

<http://www.nywea.org/clearwaters/04-1-spring/adkhist.cfm>

Natural Communities

[http://www.apa.state.ny.us/About\\_Park/natural\\_commun.htm](http://www.apa.state.ny.us/About_Park/natural_commun.htm)

Adirondack Park Wildlife

[http://www.apa.state.ny.us/About\\_Park/wildlife.htm](http://www.apa.state.ny.us/About_Park/wildlife.htm)

Adirondack Park Visitor Interpretive Centers

[http://www.adkvic.org/wildlifefest\\_ps.html](http://www.adkvic.org/wildlifefest_ps.html)

Adirondack Mammals

<http://www.esf.edu/aec/adks/mammals/>

Sings of Wildlife

<http://nwco.net/051-StepOneAssessTheSituation/5-1-SignsOfWildlifePresence.asp>

Taxonomy

<http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/T/Taxonomy.html>

Biological Classification

<http://www.physicalgeography.net/fundamentals/9b.html>

Food Chain

[http://www.pbs.org/edens/etosha/fm\\_foodchain.htm](http://www.pbs.org/edens/etosha/fm_foodchain.htm)

Wildlife Glossary

<http://www.wildlife-museum.org/wildlife/glossary.php>

Envirothon Wildlife Glossary

<http://www.mascd.net/envirothon/wildlife/Wildlife/glossaryofterms.pdf>

NYS Wildlife

<http://www.dec.ny.gov/23.html>

Calculating Slope using a Topo Map

[http://www.cs.nmsu.edu/~jbj/index\\_auxil/idaho\\_virtual\\_campus/slope\\_cal\\_c.htm](http://www.cs.nmsu.edu/~jbj/index_auxil/idaho_virtual_campus/slope_cal_c.htm)

Using a Topo Map

[http://geology.isu.edu/geostac/Field\\_Exercise/topomaps/topo\\_interp.htm](http://geology.isu.edu/geostac/Field_Exercise/topomaps/topo_interp.htm)

Hunting in NYS

<http://www.dec.ny.gov/outdoor/hunting.html>

Animals on Defense

<http://oncampus.richmond.edu/academics/education/projects/webunits/adaptations/>

Adirondack Birds

<http://www.esf.edu/aec/adks/birds.htm>

Adirondack Amphibians and Reptiles

<http://www.esf.edu/aec/adks/herps.htm>

New York State Mammals  
<http://www.dec.ny.gov/animals/263.html>

New York State Birds  
<http://www.dec.ny.gov/animals/271.html>

New York State Amphibians and Reptiles  
<http://www.dec.ny.gov/animals/277.html>

New York State Species Conservation  
<http://www.dec.ny.gov/animals/279.html>

## Current Issue: Protection of Groundwater through Urban, Agricultural, and Environmental Planning.

Canon Envirothon Information  
<http://www.envirothon.org/component/content/article/43-competition/136-2010-current-environmental-issue.html>

NYS Envirothon Information:  
<http://www.nysenvirothon.net/currentissue/CurrentIssueLearningObjectives.html>

New York State Information:  
<http://www.dec.ny.gov/lands/26561.html>

<http://ny.water.usgs.gov/>

[http://www.gwpc.org/e-library/documents/state\\_fact\\_sheets/new%20york.pdf](http://www.gwpc.org/e-library/documents/state_fact_sheets/new%20york.pdf)

<http://www.epa.gov/ogwdw000/dwinfo/ny.htm>

<http://cedb.asce.org/cgi/WWWdisplay.cgi?9701340>

Hydrology and Climatology  
<http://www.nrdc.org/globalWarming/hotwater/contents.asp>

<http://education.usgs.gov/common/secondary.htm#climate>

Water Quality and Quantity  
<http://jan.ucc.nau.edu/~doetqp-p/courses/env302/lec41/LEC41.html>

<http://groundwater.ucdavis.edu/publications.htm>

<http://www.water.ca.gov/groundwater/>

<http://www.usgs.gov/newsroom/article.asp?ID=2249>

<http://www.epa.gov/history/topics/fwpc/05.htm>

<http://www.awwa.org/Resources/Content.cfm?ItemNumber=1142&showLogin=N>

<http://www.envirothon.org/pdf/2010/occurrence.pdf>

<http://www.grac.org/hv/summer09.pdf>

<http://www.epa.gov/region09/water/groundwater/gswp-forum/>

<http://www.epa.gov/watertrain/#community>

<http://www.envirothon.org/pdf/2010/evaluation.pdf>

<http://www.purdue.edu/dp/envirosoft/groundwater/src/ground.htm>

Land-Use Planning and its Effect on Groundwater

<http://www.envirothon.org/pdf/2010/decision.pdf>

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/irrigated\\_lands/long\\_term\\_program\\_development/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/index.shtml)

<http://pubs.usgs.gov/circ/2003/circ1247/pdf/Circ1247.pdf>

The Water-Energy Nexus

[http://www.sandia.gov/energy-water/roadmap\\_overview.htm](http://www.sandia.gov/energy-water/roadmap_overview.htm)

<http://www.envirothon.org/pdf/2010/energyandwater.pdf>

<http://www.purdue.edu/dp/envirosoft/groundwater/src/terms1.htm>

## *New York State Envirothon*

### Study Guides

<http://www.nysenvirothon.net/StudyGuides.html>

## *Canon Envirothon*

### Learning Objectives

[http://www.envirothon.org/index.php?option=com\\_content&task=view&id=39&Itemid=45](http://www.envirothon.org/index.php?option=com_content&task=view&id=39&Itemid=45)

### Training and Educational Resources

[http://www.envirothon.org/index.php?option=com\\_content&task=view&id=40&Itemid=40](http://www.envirothon.org/index.php?option=com_content&task=view&id=40&Itemid=40)

## *Soil and Water Conservation District Envirothon*

### *Study Materials*

New York SWCD Student Training Materials

<http://www.nycswcd.net/envirothon.cfm>

Long Island Regional Envirothon

<http://www.co.suffolk.ny.us/departments/soil/Long%20Island%20Envirothon/envirothon.aspx>