

Websites Specific to the Protection of Groundwater

Groundwater Contaminants:

- Tetrachloroethylene: www.epa.gov/chemfact/f_perchl.txt and en.wikipedia.org/wiki/Tetrachloroethylene
- Arsenic: www.nh.gov/epht/topics/arsenic.htm and en.wikipedia.org/wiki/Arsenic
- Polychlorinated biphenyls (PCBs): www.epa.gov/OGWDW/contaminants/dw_contamfs/pcbs.html and en.wikipedia.org/wiki/Polychlorinated_biphenyl
- methyl tertiary butyl ether (MTBE): www.des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-3-19.pdf and en.wikipedia.org/wiki/Methyl_tert-butyl_ether
- 1,4-Dioxane: www.des.nh.gov/organization/commissioner/pip/factsheets/ard/documents/ard-ehp-30.pdf and en.wikipedia.org/wiki/1,4-Dioxane

General Aquatics Information Websites

Surface Water and Groundwater

1. waterontheweb.org/under/lakeecology/index.html - Understanding Lake Ecology from Water on the Web. Basics of lake ecology. Review the following pages: Density Stratification, Watersheds, General Lake Chemistry, Dissolved Oxygen, Nutrients, Chlorophyll.
2. www.assabriver.org/river/watercycle/groundwater - What is Groundwater? (Assabet River StreamWatch - MA)
3. www.epa.gov/region01/students/teacher/world.html - “World in Our Backyard” (EPA New England). Wetland science and function. Chapters 1 through 4.
4. www.wildlife.state.nh.us/Wildlife/Wildlife_profiles/profile_vernal_pools.pdf - From the NH Fish and Game Department. Information on vernal pools.

Water Quality and Pollution Prevention

5. www.des.nh.gov/organization/commissioner/pip/publications/wd/documents/vrap_parameters.pdf - “Interpreting VRAP Water Quality Parameters”, from the NHDES Volunteer River Assessment Program (VRAP). Basic water quality parameter descriptions.
6. www.des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-03-42.pdf - Best Management Practices to Control Non-point Source Pollution: A Guide for Citizens and Town Officials (NHDES). Guide to BMPs and Non Point Source pollution.
7. www.crjc.org/buffers/Introduction.pdf - Fact sheet about riparian buffers from the Connecticut River Joint Commissions.

Plants and Animals

8. www.des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-05-30.pdf - From the Department of Environmental Services Exotic Species Program. Aquatic Plants and Algae of New Hampshire’s Lakes and Ponds.
9. www.dec.ny.gov/animals/35772.html - From the NY Department of Conservation. Pictorial guide to macroinvertebrates. Students should understand the difference between the major Orders of insects. Do not be concerned about knowing the different Families within each Order, but at least understand that similar insects within an order can have a variety of characteristics.
10. www.cdm.org/biosite/BioSITE-Curriculum/Curriculum-by-Activity/Unit-8-Read1-Intro-Macroinvertebrates.pdf - From the Children’s Discovery Museum “BioSITE” curriculum. Introduction to Macroinvertebrates.

Things to think about as you read through the aquatics materials

1. Water quality parameters – What do they measure? What do they indicate?
 - Focus on dissolved oxygen, chlorophyll *a*, phosphorus, temperature, chloride, conductivity, turbidity, and macroinvertebrate pollution tolerance
2. Hydrologic cycle components – connections between groundwater, rivers, lakes, wetlands, etc.
3. Watershed changes – How does water quality change from upstream of an urbanized area to downstream? How will the aquatic organisms be impacted by changes?
4. Best management practices – How can pollutants from non-point source pollution be kept from entering water bodies in urban or rural settings?
5. Non-native, invasive species – How do they impact a water body?
6. Topographic maps – How are watershed boundaries found by looking at a topographic map? Which way does the water flow on the map?
7. Shoreline buffers – How can plants prevent pollutants from entering a water body?
8. Wetlands – What are the characteristics of a wetland? What are the characteristics of a vernal pool? What are the functions and values of wetlands?
9. Groundwater – What is an aquifer? How does groundwater “recharge”?

The Aquatics Committee

Should you have any questions, please feel free to contact one of us. We will respond to you in as timely a manner as we can.

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