

Summer 2010

Mr. Patton

Water Resources and the Environment
GLSP SCIE 635
Syllabus

- June 29 The Global Water Cycle
 Reservoirs of water
 Residence time of water in sub-cycles
 Transport of water across the earth
 Climate change and the hydrologic cycle
- July 1, 6 Hydrology of Rivers
 Measuring river flow
 Hydrographs
 Models of river runoff
 Urbanization and river runoff and morphology
- July 8 Floods and Droughts
 Probability of extreme events
 Paleoflood hydrology
- July 13 River modification
 Mississippi River flood control
 Colorado River water resources
 River restoration
- July 15 Groundwater hydrology
 How groundwater flows
- July 20 Groundwater extraction
 Groundwater in humid regions
 A history of groundwater use on Long Island
 Groundwater in Connecticut
- July 22 Groundwater in arid regions
 High Plains Aquifer
 Central Valley, CA
- July 27 Groundwater Environmental Problems
 Ground subsidence
 Salt water intrusion in coastal aquifers
 Groundwater contamination

July 29

Environmental Law and Water

Clean Water Act

Safe Drinking Water Act

Resource Conservation and Recovery Act

CERCLA "Superfund" Law