Criteria for Assigning Pollution Potential Ratings to each Subwatershed

Note: A map of the watershed has been included, which contains the locations of the four subwatersheds.

Criteria for rating each identified potential pollution source are based mostly on the Pollution Analysis report and include the following:

a. Off-lot (Discharging) Home/Semi-Public Sewage Disposal Systems (HSDS's), referred to as Septic Tanks.
   - Unsewered area of the subwatershed (larger area means higher potential for off-lot systems to be present)
   - Residential areas over twenty years old, since the average life expectancy of a properly functioning HSDS is about twenty years
   - The area of the subwatershed with severe soil limitations for home sewage disposal systems
   - Number of residential roads parallel to streams/discharge point in the subwatershed
   - Areas in the subwatershed with a known increasing amount of development
   - The fact that there is a lack of any monitoring of off-lot systems
b. Failing On-lot (Nondischarging) Home/Semi-Public Sewage Disposal Systems (Septic Tanks)
   - Same criteria as above for rating off-lot systems, plus residential areas close to streams (about 200-300 ft.), areas of steep slopes, and the distribution of semi-public sewage disposal systems
c. Small, Discharging less than 100,000 gpd, Sewage Treatment Plants (Package Plants)
   - The distribution of package plants in the subwatershed
   - Combined design flow (maximum discharge) for the subwatershed
   - Known lack of nutrient monitoring of these small package plants
d. Agricultural Areas
   - Agricultural land use areas
   - Slope percentages
   - Soil Loss potential
   - Distribution/location of agricultural areas relative to streams
e. Construction Sites
   - All of above criteria for rating Agricultural Areas, plus development on prime agricultural land that has occurred since late 1970s
   - Known developing areas (observations made through windshield surveys, land use maps, aerial photos, tax maps etc.)
f. Impervious Areas (e.g., Rooftops, Roads, Parking Lots, etc.)
   - Distribution and location of reported spills relative to streams and ground water
   - Presence of roads/highways and the relative closeness of these roads/highways to surface water and ground water

- The location/distribution of all reported spills and soil loss potential downstream from impervious areas, since the increase in runoff (overland flow) from impervious areas can exacerbate natural erosion processes.

g. Trucking Activity and Related Maintenance (Including Diesel Fuel Use)
   - Distribution and known results of trucking related spills in the subwatershed
   - Presence of primary roads, especially state and interstate highways in the subwatershed
   - Location of trucking terminals relative to streams in the subwatershed
   - Areas of steep slopes near primary roads and/or trucking terminals in the subwatershed
   - The fact that some of the compounds spilled by trucking activity are long-lived (streams have difficulty assimilating them)

h. Oil and Gas Wells (i.e., Oil and Gas Production and Exploration/Drilling Activity)
   - Distribution and density of active wells and drilling activity
   - Relative distance to streams
   - Areas where wells and spill locations are near steep slopes

i. Oil and Gas Pipelines (i.e., Oil and Gas Transmission)
   - Location/distribution of pipelines relative to subwatersheds and streams
   - Areas of increasing amount of development activity where excavators may accidentally dig up a pipeline
   - Agricultural areas of low slope percentages (defined by some communities as less than 12%)--because they are attractive to developers
   - The fact that pipelines eventually corrode and may develop leaks
   - Reported pipeline spills

j. Leaking Underground Storage Tanks
   - Distribution and location of reported releases relative to streams and ground water
   - Known releases of specific compounds e.g., gasoline

k. Registered Underground Storage Tanks
   - Distribution and location relative to streams and ground water
   - There is some sort of protective mechanism in place to lessen the potential for leaks to occur

l. Gasoline Use (Including Storage and Transportation of Gasoline)
   - Distribution and location of reported releases relative to streams and ground water
   - Presence of roads/highways and the relative closeness of these roads/highways to surface water and ground water
   - Areas with slopes greater than 6%

m. Nurseries/Greenhouses and Landscaping Operations
   - Relative closeness to streams
   - Slope percentage

n. Lawn and Garden/Household Maintenance Activity
   - Distribution of residential areas and more recent residential roads
   - Relative closeness to streams
   - Slope percentages
   - Number of riparian landowners

o. Golf Courses
   - Relative closeness to streams
   - Slope percentages

p. Fuel Oil Use (Including Storage and Transportation of Fuel Oil)
   - Distribution/location of reported spills and relative closeness to surface water and ground water
   - Presence and quantity of roads
   - Slope percentages
   - Known areas lacking natural gas service

q. Salt Storage and Seasonal Spreading of Salt
   - Presence of roads and surface area of road/parking lot surface (impervious area)
   - High-traffic roads and parking lots (state routes, interstate highways, rest areas)

r. Polychlorinated Biphenyls (PCBs) Use (Used in Some Electrical Transformers)
   - Distribution/location of reported spills relative to streams and ground water
   - Slope percentages

s. Abandoned Drinking Water Wells
   - The potential for abandoned well contamination--the number and types of reported spills, failing sewage disposal systems
   - Distribution/location of reported spills
   - Slope percentages

t. Mining Activity (Sand and Gravel Mining)
   - Distribution of active or abandoned sand and gravel pits (abandoned pits could now be ponds/lakes)
   - The potential for pit contamination--the number and types of report spills, failing sewage disposal systems nearby, etc.
   - Distribution/location of reported spills relative to streams and ground water (many pits are abandoned when ground water is encountered)
   - Slope percentages

u. Industrial Land Use Areas
   - Chemical land use and disposal

v. Landfills and Dumps
   - Number of Landfills and Dumps and proximity to surface and ground water

w. Nutrients from Natural Sources
   - Fecal contamination from water fowl, e.g., high populations of Giant Canada Geese are found at the watersheds various golf courses.